

AD-A122 966

MISSILE FACILITIES LMG-25 MAINTENANCE CAREER LADDER 1/1
AFSCS 4453OF 4455OF AND 4457OF(U) AIR FORCE
OCCUPATIONAL MEASUREMENT CENTER RANDOLPH AFB TX DEC 82

UNCLASSIFIED

F/G 5/9

NL

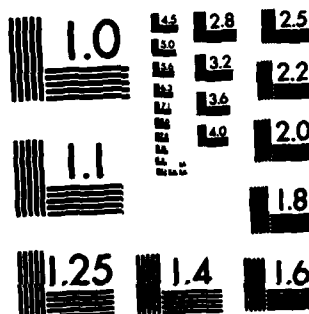
END

DATE

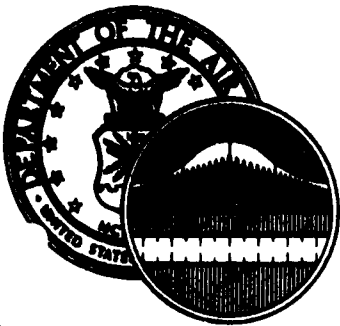
FILED

283

DTIC



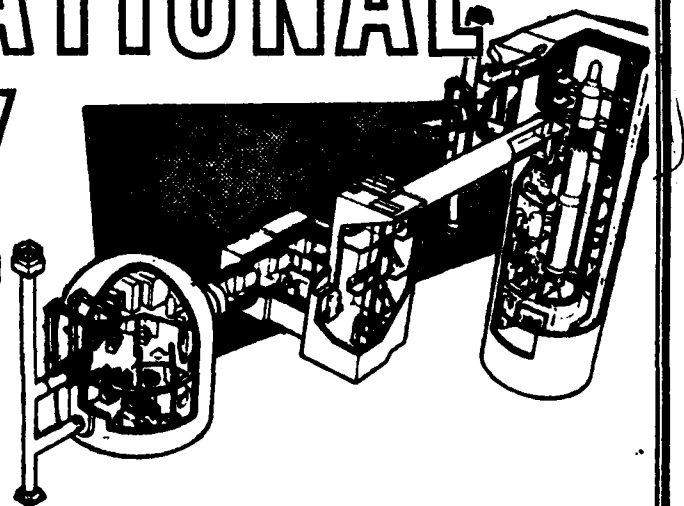
MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A



UNITED STATES AIR FORCE

AD A122966

OCCUPATIONAL SURVEY REPORT



MISSILE FACILITIES, LMG-25
MAINTENANCE CAREER LADDER
AFSCs 44530F, 44550F, AND 44570F
AFPT 90-445-439
DECEMBER 1982

DTIC
SELECTED
JAN 3 1983
H

OCCUPATIONAL ANALYSIS PROGRAM
USAF OCCUPATIONAL MEASUREMENT CENTER
AIR TRAINING COMMAND
RANDOLPH AFB, TEXAS 78152

APPROVED FOR PUBLIC RELEASE: DISTRIBUTION UNLIMITED

FILE COPY

92 12 30 02 7

DISTRIBUTION FOR
AFSC 445XOF OSR AND SUPPORTING DOCUMENTS

	<u>OSR</u>	<u>JOB</u> <u>INV</u>	<u>ANL</u> <u>EXT</u>	<u>TNG</u> <u>EXT</u>
AFHRL/LRT	1	1	1m	1m/1h
AFHRL/MODS	2	6	1m	1m
AFMEA/MEMD	1	1	1h	1
ARMY OCCUPATIONAL SURVEY BRANCH	1	1		
CCAF/AYX	1	1		
DEFENSE TECHNICAL INFORMATION CENTER	1	1		
HQ AFISC/DAP	1	1		
HQ AFMPC/MPCHS	1	1		
HQ AFMPC/MPCRQ	2			
HQ AFSC/MPAT	3	3		3
HQ ATC/DPAE	1	1		1
HQ ATC/TTQC	2	1		1
HQ SAC/DPAT	3	3		3
HQ SAC/LGMQ (ATCLO)	1	1		1
HQ USAF/LEY	1	1		1
HQ USAF/MPPT	1	1		1
HQ USMC/TPI	1	1		
LMDC/AN	1			
NODAC	1	1		
308 SMW/MBT (LITTLE ROCK AFB AR)	2	2		2
381 SMW/MBT (McCONNELL AFB KS)	2	2		2
390 SMW/MBTT (DAVIS-MONTHAN AFB AZ 85707)	2	2		2
3700 TCHTW/TTGX (SHEPPARD AFB TX)	5	2	2	9
3507 ACS/DPUI	1	1		

m = microfiche only
h = hard copy only

TABLE OF CONTENTS

	<u>PAGE NUMBER</u>
PREFACE -----	iii
SUMMARY OF RESULTS -----	iv
INTRODUCTION -----	1
Objectives -----	1
History -----	1
SURVEY METHODOLOGY -----	3
Inventory Development -----	3
Survey Administration -----	3
Data Processing and Analysis -----	3
Task Factor Administration -----	4
Survey Sample -----	5
SPECIALTY JOBS (Career Ladder Structure) -----	8
Specialty Overview -----	8
Job Group Descriptions -----	10
COMPARISON OF SPECIALTY JOBS -----	20
ANALYSIS OF DAFSC GROUPS -----	26
ANALYSIS OF EXPERIENCE (TAFMS) GROUPS -----	32
TRAINING ANALYSIS -----	38
Training Emphasis -----	38
Task Difficulty -----	38
Specialty Training Standards (STS) 445X0F -----	39
Analysis of 445X0F Plan of Instruction -----	39
OTHER ANALYSES -----	50
Level of Organization Assigned -----	50
Time Spent in Government Vehicle Traveling to and from Missile Sites -----	50
Equipment Handling at Operational Bases and Missile Sites -----	50
Training Other Than Branch Training -----	50
IMPLICATIONS -----	54
APPENDIX A - JOB DESCRIPTIONS FOR SPECIALTY JOB GROUPS ---	55

PREFACE

This report presents the results of a detailed Air Force occupational survey of the Missile Facilities, LMG-25, Maintenance career ladder, AFSCs 44530F, 44550F, and 44570F. The project was undertaken at the request of Major Jerry D. Chapman, HQ ATC/TTQC, and was directed by USAF Program Technical Training Volume II, dated June 1980. Authority for conducting occupational surveys is contained in AFR 35-2. Computer outputs from this report are available for use by operating and training officials.

The survey instrument used in the present project was developed by Second Lieutenant Kevin F. Morefield, Inventory Development Specialist. Mr Bob Vance was the CODAP Programmer. Mr David E. Williams analyzed the data and wrote the final report. This report has been reviewed and approved by Lieutenant Colonel Jimmy L. Mitchell, Chief, Airman Career Ladders Analysis Section, Occupational Analysis Branch, USAF Occupational Measurement Center, Randolph AFB, Texas 78150.

Copies of this report are distributed to appropriate Air Staff sections, major commands, functional managers, and other interested training and management personnel (see distribution list). Additional copies are available upon request to the USAF Occupational Measurement Center, attention of the Chief, Occupational Analysis Branch (OMY), Randolph AFB, Texas 78150.

This report has been reviewed and is approved.

PAUL T. RINGENBACH, Col, USAF
Commander
USAF Occupational Measurement
Center

WALTER E. DRISKILL, Ph.D.
Chief, Occupational Analysis Branch
USAF Occupational Measurement
Center



Accession For	
NTIS GRA&I	<input checked="checked" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By	
Distribution/	
Availability Codes	
Dist	Avail and/or
Special	
A	

SUMMARY OF RESULTS

1. Survey Objectives: The purpose of this survey was to provide data for the review and update of the Specialty Training Standard (STS) and to determine job content and training requirements since the restructuring of the missile facility career ladder. Sixty-nine percent (163) of the eligible career ladder members (237) were surveyed. The final sample included representative paygrades, skill levels, experience groups, and commands;
2. Job Structure: The career ladder structure is composed of 11 major groups: maintenance controllers, supervisory personnel, training management personnel, logistics personnel, environmental defense personnel, facility electricians, environmental services and water systems personnel, quality control and evaluation personnel, real property installed equipment personnel, facility electrical power production personnel, and water treatment personnel. In general, 445XOF personnel were distinguished by the type of facility system or systems maintained and work locations.
3. Career Ladder Progression: As incumbents in DAFSC 445XOF progress through various enlistment periods, they continue to maintain missile facility systems and components but spend greater amounts of time on managerial and supervisory duties. As a result, while the 3- and 5-skill level incumbents' jobs are primarily technically oriented, 7-skill level incumbents perform a wide variety of supervisory tasks in addition to technical functions.
4. AFR 39-1 Specialty Descriptions: Overall, the AFR 39-1 specialty descriptions provide an accurate overview of 445XOF AFSC.
5. Training Analysis: The 445XOF Specialty Training Standard (STS) was found to provide general coverage of Titan II Missile Facility tasks; however, several specialized areas were noted which should be considered in any future review or revision of the STS. The Plan of Instruction (POI J3ABR445XOF, dated June 1980) contained several objectives not supported by OSR tasks. In addition, several specialized tasks with above average Training Emphasis (TE) ratings were not covered in the course. Discussions with SAC supervisors indicated that most of these unmatched tasks are included in SAC local training programs.
6. Implications: Currently, the ATC-provided ABR course provides general training which is supplemented by SAC-sponsored special courses at the three Titan II bases. If AFS 445XOF training is continued, a Utilization and Training Workshop should revise the STS and make an in-depth review of both ATC and SAC courses provided for the specialty.

**OCCUPATIONAL SURVEY REPORT
MISSILE FACILITIES CAREER LADDER
(AFSC 445X0F)**

INTRODUCTION

This is a report of an occupational survey of the LGM-25 Missile Facilities Specialty (AFSC 445X0F) completed by the Occupational Analysis Branch, USAF Occupational Measurement Center, in October 1982. A previous survey of this specialty was conducted in 1975.

Objectives

This project is to provide data for use in the review and update of the Specialty Training Standard (STS) and to determine job content and training requirements since restructuring the Missile Facilities career ladder in April 1980. Additional issues involve the unhappiness of SAC personnel concerning the quality of performance of personnel who complete the 17-week technical school and the possibility of duplication of training included in the 100-day follow-on training program provided by SAC after members have completed the basic technical training course.

History

The 445X0F career ladder had its beginning in February 1959 as AFS 421X3, Aircraft and Missile Ground Support Equipment Repairman. In September 1961, the Missile personnel were removed from this AFS and placed into AFS 541X0A/D/E/F/G/J/Z, Missile Facilities Specialist/Technicians. Titan I personnel held AFS 541X0E, while Titan II personnel held AFS 541X0F. In March 1966, most of the shreds were deleted. This trend continued until May 1975, when shreds were created once again. Shreds created at that time included the F-shred for the LGM-25 Missile. In April 1977, the F-shred was further broken out into an operations (541X0E) shred and a maintenance (541X0F) shred. In April 1980, AFS 541X0 was removed from the Mechanical/Electrician Utilization Field (541XX) and placed into the Missile Maintenance area, as the 445X0F, Missile Facilities, LGM-25, Maintenance career ladder.

The basic job of 445X0F personnel, as described by AFR 39-1, has two primary responsibilities--performing preventive and operator maintenance on missile weapons systems support facilities and equipment, and monitoring and operating missile weapons systems support equipment. This generally includes inspecting, monitoring, troubleshooting, operating, maintaining, and repairing missile weapons systems support facilities and equipment. To enter this career ladder, personnel must complete Course J3ABR44530F-00 taught at

APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED

Sheppard Technical Training Center (STTC). This course is 17 weeks in length and includes the use of Air Force publications and forms; and skills and knowledge required to operate, perform maintenance, and perform malfunction analysis of Titan II missile facility electrical power generation and distribution, propellant transfer, facility elevator, air conditioning, water and waste, pneudraulic, and work platform systems. This course produces approximately 65 graduates per year.

Members of the 445X0F specialty are assigned almost exclusively to SAC; with some few being assigned to ATC and AFSC. SAC personnel make up 84 percent of all 445X0F personnel, while ATC and AFSC contain the remaining 16 percent.

SURVEY METHODOLOGY

Inventory Development

The data collection instrument used for this occupational survey was USAF Job Inventory AFPT 90-445-439. A tentative task list was formulated during visits with technical school personnel at STTC to include tasks resulting from the use of specialty training standards and other career ladder documents as a guide. The tentative task list was refined and validated by subsequent visits to operational units that have 445XOF personnel assigned. From this process, a final inventory was developed consisting of 467 tasks grouped under 11 duty headings.

The 445XOF inventory consisted of three sections: (1) biographical information, which included items such as name, SSAN, number of months on current job, and number of months military service; (2) a background information section, which included questions about such items as job satisfaction, equipment used, type of organization, job title, and training courses completed; and (3) a task section listing all tasks performed by career ladder personnel. Respondents first checked the tasks they performed and then rated each task checked on a nine-point scale showing relative time spent on that task as compared to all other tasks checked. The rating scale ranged from one (very small amount of time spent), to nine (very large amount of time spent), with a rating of five representing an average amount of time spent performing a task. To determine the relative amount of time spent on each task, all of the individual's ratings were assumed to account for 100 percent of his or her time on the job. The ratings were then summed and each rating was divided by the total number of task responses and multiplied by 100. This procedure provides a basis for comparing tasks, not only in terms of percent members performing, but also in terms of average percent time spent.

Survey Administration

From July 1981 to October 1981, job inventories were administered by local consolidated base personnel offices to all DAFSC 445XOF personnel at the 3-, 5-, and 7-skill levels who were eligible to participate in the survey. This included 163 members assigned to operational units. Members eligible to participate in the survey were selected from Uniform Airmen Record (UAR) data tapes generated by the Air Force Human Resources Laboratory (AFHRL).

Data Processing and Analysis

Once job inventories are returned from the field, they are prepared so task responses and background information can be optically scanned. Biographical information (such as name, base, AUTOVON extension) are keypunched onto discs and entered directly into the computer. Once both sets of data are entered into the computer, the task, background, and biographical information are merged to form a complete case record for each

respondent. Computer-generated programs, using Comprehensive Occupational Data Analysis Program (CODAP) techniques, are then applied to the data.

CODAP produces job descriptions for respondents based on their responses to specific inventory tasks. Computer-generated job descriptions are available for DAFSC, TAFMS, and MAJCOM groups, and include such information as percent members performing each task, the average percent time spent performing each task, and the cumulative average percent time spent by all members for each task in the inventory.

An integral element of the USAF occupational analysis program is to examine the structure of specialties in terms of what people are actually doing in the field, rather than how official career ladder documents say they are organized. This is accomplished by performing cluster analysis of survey respondents. Those members who perform similar tasks and spend similar amounts of time on those tasks are grouped together. A special analysis is then performed on the jobs and background data for each group of respondents. Once the structure is clarified, comparisons can be made to the official career ladder documents to identify discrepancies in training or utilization policies.

Task Factor Administration

Selected senior DAFSC 445XOF personnel were asked to complete a second booklet for either training emphasis (TE) or task difficulty (TD). The TE and TD booklets are processed separately from the job inventories. The rating information is then used in a number of different analyses discussed in more detail within the report. Due to the relatively small size of the career ladder, the number of raters available was less than normally desired (40 each for TE and TD). Even though the number of TE and TD raters was small, they represent a substantial proportion of the senior technicians in the field.

Task Difficulty. Each of the 17 individuals completing a task difficulty booklet were asked to rate all of the tasks on a nine-point scale (from extremely low to extremely high) as to the relative difficulty of each task in the inventory. Difficulty is defined as the length of time required by the average member to learn to do the task. Task difficulty data were independently collected from experienced DAFSC 44570F personnel. The interrater reliability (as assessed through components of variance of standard group means) for these raters was acceptable at .81. The ratings were adjusted by the computer program so tasks of average difficulty have ratings of 5.00.

Job Difficulty Index (JDI). After computing task difficulty for each task item, it is then possible to compute a Job Difficulty Index (JDI) for the job groups identified in the survey analysis. This index provides a relative measure of which jobs, when compared to other jobs identified, are more or less difficult. An equation using the number of tasks performed and the average difficulty per unit time spent (ADPUTS) as variables is the basis for the JDI. The index ranges from 1.0 for very easy jobs to 25.0 for very

difficult jobs. The indices are adjusted so average JDI is 13.00. Thus, the more time a group spends on difficult tasks and the more tasks they perform, the higher the JDI.

Training Emphasis. Individuals completing training emphasis booklets were asked to rate tasks on a nine-point scale ranging from no training required to extremely heavy training required. Training emphasis is a rating of which tasks required structured training for first-term personnel. Structured training is defined as training provided at resident technical schools, field training detachments (FTD), mobile training teams (MTT), formal OJT, or any other organized training method. Training emphasis data were independently collected from 20 experienced DAFSC 44570F personnel. The interrater reliability (as assessed through the components of variance of standard group means) for these raters was .89, which indicated there was a reasonable degree of agreement among raters as to which tasks required some form of structured training and which did not. Tasks rated highest in training emphasis had ratings of 4.72 and above. The average training emphasis rating was 3.02.

When used in conjunction with other factors, such as percent members performing, the task difficulty and training emphasis ratings can provide an insight into training requirements. This may help validate the lengthening or shortening of specific units of instruction in various training programs.

Survey Sample

Personnel were selected to participate in this survey to ensure an accurate representation across all MAJCOM and paygrade groups. In this study, all eligible personnel holding DAFSC 445X0F, with 3-, 5-, and 7-skill levels, were solicited for their responses. Table 1 reflects the major command distribution of personnel assigned to the 445X0F specialty as of February 1981. Table 2 reflects the percentage distribution by paygrade. Table 3 reflects the distribution of the survey sample in terms of TAFMS groups. Overall, a representative sample was obtained, with 163 (69 percent) respondents sampled from the 237 available members of this career ladder.

TABLE 1
COMMAND REPRESENTATION OF SURVEY SAMPLE

<u>COMMAND</u>	<u>PERCENT OF ASSIGNED*</u>	<u>PERCENT OF SAMPLE</u>
SAC	84	88
ATC	10	4
AFSC	4	4
OTHER**	<u>2</u>	<u>4</u>
TOTAL	100	100

TOTAL ASSIGNED - 281
ELIGIBLE FOR SURVEY - 237 (84 PERCENT STRATIFIED SAMPLE)
TOTAL RETURNED - 163 (69 PERCENT OF ELIGIBLES)

*AS OF FEBRUARY 1981

**ALL OF THESE RESPONDENTS ARE ASSIGNED TO NORAD

TABLE 2
PAYGRADE DISTRIBUTION OF SURVEY SAMPLE

<u>PAYGRADE</u>	<u>PERCENT OF ASSIGNED</u>	<u>PERCENT OF SAMPLE</u>
AIRMAN (E-2, E-3)	20	11
E-4	33	35
E-5	26	32
E-6	13	12
E-7	8	9
E-8	*	1
E-9	<u>0</u>	<u>0</u>
TOTAL	100	100

*LESS THAN 1 PERCENT

TABLE 3
TAFMS DISTRIBUTION OF SURVEY SAMPLE

<u>TAFMS (MONTHS)</u>	<u>PERCENT OF SAMPLE</u>
1-48	38
49-96	28
97-144	13
145-192	10
193-240	10
241+	<u>1</u>
TOTAL	100

SPECIALTY JOBS (Career Ladder Structure)

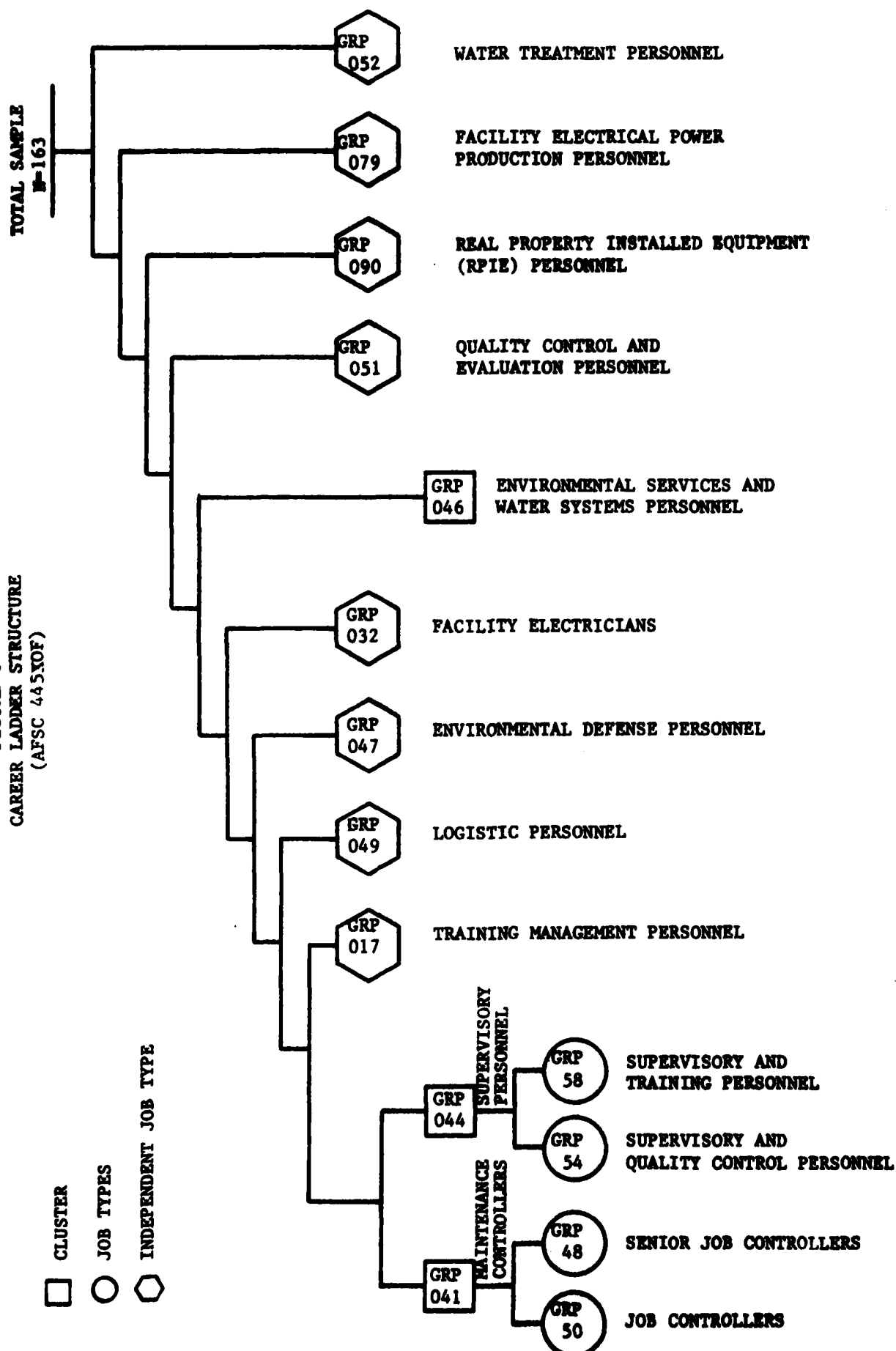
One of the most important steps in the analysis of occupational survey data is to determine how career ladder incumbents are actually used in the field. The number of distinct jobs within a career field may have a great impact on the Air Force personnel classification policy, technical training, on-the-job training (OJT), and other Air Force activities. This section of the report includes descriptions of jobs within the specialty and how they relate to one another.

Specialty Overview

A variety of separate job groups were identified within the Missile Facilities, LGM-25, Maintenance career ladder. Based on similarity of tasks performed and amount of time spent performing each task, the jobs performed by 445XOF respondents are listed below and illustrated in Figure 1. Job groups are identified with group identification numbers to cross reference the groups to computer printouts included in the statistical summary packages provided to selected users. These identification numbers are shown as group numbers for each type of job:

- I. MAINTENANCE CONTROLLERS (GRP041, N=11)
 - A. Job Controllers (GRP050, N=5)
 - B. Senior Job Controllers (GRP048, N=6)
- II. SUPERVISORY PERSONNEL (GRP044, N=14)
 - A. Supervisory and Quality Control Personnel (GRP054, N=7)
 - B. Supervisory and Training Personnel (GRP058, N=7)
- III. TRAINING MANAGEMENT PERSONNEL (GRP017, N=11)
- IV. LOGISTICS PERSONNEL (GRP049, N=5)
- V. ENVIRONMENTAL DEFENSE PERSONNEL (GRP047, N=5)
- VI. FACILITY ELECTRICIANS (GRP032, N=12)
- VII. ENVIRONMENTAL SERVICES AND WATER SYSTEMS PERSONNEL (GRP046, N=29)
- VIII. QUALITY CONTROL AND EVALUATION PERSONNEL (GRP051, N=6)
- IX. REAL PROPERTY INSTALLED EQUIPMENT (RPIE) PERSONNEL (GRP090, N=16)
- X. FACILITY ELECTRICAL POWER PRODUCTION PERSONNEL (GRP079, N=15)
- XI. WATER TREATMENT PERSONNEL (GRP052, N=9)

FIGURE 1
CAREER LADDER STRUCTURE
(AFSC 445XOF)



The respondents forming these clusters and job types account for 82 percent of the total survey sample. The remaining 18 percent of the sample did not group with any of the job types or clusters described above.

Generally, members of the 445X0F specialty were distinguished by the type of facility system or systems they primarily maintained. As illustrated by Table 4, respondents indicated that a majority of their time was centered around one system, although there were some incumbents who reported working on other systems. Of the systems involved, only two (facility electric and power production, and environmental services and water treatment systems) were identified as worked on by a substantial percentage of incumbents from two different job groups. These job groups include environmental services and water systems personnel, water treatment personnel, facility electricians, and facility power production personnel. Also, nearly all groups identified within the various facility systems performed a number of common general maintenance and administrative functions, regardless of specialization. Supervisory, management, and training personnel were also distinguished due to their performance of job-related functions.

Job Group Descriptions

A brief description of the clusters, job types, and independent job types of the specialty structure analysis is presented below. Appendix A contains more complete representative tasks list for each clusters, job types, and independent job type.

I. MAINTENANCE CONTROLLERS (GRP041, N=11). This cluster, representing approximately seven percent of the survey sample, is comprised of 11 individuals who perform work controller functions. These respondents are responsible for directing compliance with maintenance policies and procedures, utilization of equipment supplies or workspace, as well as prioritizing and planning work assignments. Members of this group reported spending 82 percent of their job time performing functions such as directing and implementing, organizing and planning, and administrative functions (see Table 4). Representative tasks included:

- dispatching maintenance teams
- directing compliance with maintenance policies or procedures
- determining work priorities
- providing technical advice to missile crew commanders, staff agencies, or missile crews
- initiating work orders
- evaluating work schedules

Consisting primarily of 7-skill level personnel (55 percent), members of this cluster have an average paygrade of E-6 and an average of 108 months TAFMS.

TABLE 4

RELATIVE PERCENT TIME SPENT ON DUTIES BY CLUSTERS AND JOB TYPES

DUTIES	MAINT CONT JOB TYPES				SUPERVISORY JOB TYPES			
	MAINT		CONT		SUPV		AND	
	JOB CONT (GRP041, N=11)	JOB CONT (GRP050, N=5)	SR JOB CONT (GRP048, N=6)	SUPV PERS (GRP044, N=14)	QC CONT PERS (GRP054, N=7)	AND CONT PERS (GRP058, N=7)	TNG MGT PERS (GRP017, N=11)	LOG PERS (GRP049, N=5)
ORGANIZING AND PLANNING	20	17	22	18	24	12	10	5
DIRECTING AND IMPLEMENTING	48	57	39	24	27	21	10	23
INSPECTING AND EVALUATING	9	11	9	19	22	16	5	9
TRAINING	7	4	9	15	13	18	51	2
PERFORMING ADMINISTRATIVE FUNCTIONS	14	11	17	16	12	21	20	53
PERFORMING AIR CONDITIONING, HEATING, AND REFRIGERATION SYSTEMS FUNCTIONS	-	-	-	-	-	-	-	-
PERFORMING ENVIRONMENTAL SERVICING AND WATER SYSTEMS FUNCTIONS	-	-	-	-	-	-	-	-
PERFORMING FACILITY ELECTRIC AND POWER PRODUCTION SYSTEMS FUNCTIONS	-	-	-	3	-	6	1	-
PERFORMING HYDRAULIC, PNEUMATIC, AND MISCELLANEOUS SYSTEMS FUNCTIONS	-	-	-	2	-	3	2	-
PERFORMING GENERAL MISSILE FACILITIES FUNCTIONS	2	-	4	3	2	3	1	8
PERFORMING REFUELSERVENT FUNCTIONS	-	-	-	-	-	-	-	-

*INDOTES LESS THAN ONE PERCENT

TABLE 4 (CONTINUED)

RELATIVE PERCENT TIME SPENT ON DUTIES BY CLUSTERS AND JOB TYPES

DUTIES	ENVR DEF (GRP047, N=5)	FAC ELECT (GRP032, N=12)	ENVR SVCS AND WATER SYS (GRP046, N=29)	QC CONT AND EVAL (GRP051, N=6)	RPIE PERS (GRP090, N=16)	FAC PAR PROD (GRP079, N=15)	WATER TREAT PERS (GRP052, N=9)
ORGANIZING AND PLANNING	4	1	2	4	3	2	3
DIRECTING AND IMPLEMENTING	8	3	3	9	3	3	3
INSPECTING AND EVALUATING	7	1	3	28	3	4	1
TRAINING	5	3	3	7	3	2	3
PERFORMING ADMINISTRATIVE FUNCTIONS	15	10	6	8	7	8	16
PERFORMING AIR CONDITIONING, HEATING, AND REFRIGERATION SYSTEMS FUNCTIONS	-	5	5	8	59	3	3
PERFORMING ENVIRONMENTAL SERVICING AND WATER SYSTEMS FUNCTIONS	-	5	(62)	16	8	2	(44)
PERFORMING FACILITY ELECTRIC AND POWER PRODUCTION SYSTEMS FUNCTIONS	1	(53)	3	10	*	(62)	1
PERFORMING HYDRAULIC, PNEUMATIC, AND MISCELLANEOUS SYSTEMS FUNCTIONS	(48)	3	2	4	2	4	3
PERFORMING GENERAL MISSILE FACILITIES FUNCTIONS	12	16	11	6	12	10	23
PERFORMING REFURBISHMENT FUNCTIONS	-	*	*	-	-	*	*

*DENOTES LESS THAN ONE PERCENT

Within the Maintenance Control cluster, two small job types were identified. The first was the Job Controllers (GRP050, N=5). One hundred percent of these members are assigned to SAC and are working at wing level. These incumbents spent 68 percent of their time on the job in the performance of tasks and duties involving managing and controlling maintenance and maintenance functions. Common tasks include:

- dispatch maintenance teams
- direct compliance with maintenance policies or procedures
- determine work priorities
- evaluate work schedules
- direct maintenance or utilization of equipment, supplies, or workspace
- provide technical advice to missile crew commanders, staff agencies, or missile crews
- maintain status boards, graphs, or charts other than for training
- direct development or maintenance of status boards, graphs, or charts

With an average of 88 months TAFMS, these members perform the lowest average number of tasks (11) of all the groups identified, which reflects a rather narrow scope of their job. Sixty percent of these personnel hold DAFSC 44550F, and 40 percent hold DAFSC 44570F. These personnel have an average paygrade of E-5.

The second group within this cluster was the Senior Job Controllers (GRP048, N=6). This group of six respondents has an average of 125 months TAFMS. Although these members perform tasks and duties similar to those of the previously described group of job controllers, they are more senior and, as a result, perform a greater average number of tasks and are more involved with supervisory and general missile facilities functions. Common tasks include:

- dispatch maintenance teams
- initiate work orders
- direct maintenance or utilization of equipment, supplies, or workspace
- provide technical advice to missile crew commanders, staff agencies, or missile crews
- maintain status boards, graphs, or charts other than for training
- determine work priorities
- direct compliance with maintenance policies or procedures
- demonstrate how to locate technical information
- prepare APRs
- supervise missile facilities technicians (AFSC 44570F)
- counsel personnel on personal or military-related problems
- maintain documentation files other than technical order files

Sixty-six percent of these individuals hold DAFSC 44570F and their average paygrade is E-6. Sixty-seven percent of these personnel are assigned to wing level and the remaining 33 percent are assigned to branch level. Members of this group perform an average of only 24 tasks, which is indicative of a job narrow in scope, although much broader than the job controllers described above.

II. SUPERVISORY PERSONNEL (GRP044, N=14). This cluster, which represents approximately nine percent of the survey sample, is comprised of 14 individuals who perform a large number of supervisory, training, and quality control functions. These respondents are responsible for counseling and evaluating subordinates, quality control, and training, as well as prioritizing and planning work assignments. Members of this group reported supervising between two and 19 subordinates. Common tasks include:

- plan work assignments
- determine work priorities
- supervise missile facilities specialists (AFSC 44550F)
- prepare APRs
- counsel personnel on personal or military-related problems
- evaluate compliance with maintenance policies or procedures
- analyze maintenance or inspection reports
- conduct OJT

Ninety-three percent of these personnel hold DAFSC 44570F and the remaining seven percent hold DAFSC 44599. The majority (93 percent) of these members are assigned to SAC and seven percent are assigned to ATC as training personnel. These are relatively senior respondents having an average grade of E-6 and an average of 183 months TAFMS.

Within this cluster two small job types were identified. The first job identified was the Supervisory and Training Personnel (GRP058, N=7). This group of individuals supervises an average of nine subordinates. These incumbents spent 87 percent of their time in the performance of tasks and duties involving supervision, counseling, training, and evaluating subordinates. Common tasks include:

- supervise Missile Facilities Specialists (AFSC 44550F)
- plan work assignments
- supervise Missile Facilities Technicians (AFSC 44570F)
- prepare APRs
- review Maintenance Data Collection Record forms (AFTO Form 349)
- maintain training records, charts, or graphs
- prepare training schedules
- counsel trainees on training progress
- conduct OJT
- determine OJT training requirements

This group is comprised of senior personnel with an average of 175 months TAFMS. These personnel hold DAFSC 44570F, with an average paygrade of E-6.

The second job type identified within this cluster was the Supervisory and Quality Control Personnel (GRP054, N=7). These members supervise an average of 10 subordinates. They spent 86 percent of their job time in the performance of tasks and duties involving the supervision, counseling, and evaluation of subordinates, as well as quality control functions. Common tasks performed include:

- write correspondence
- direct compliance with maintenance policies or procedures
- prepare APRs
- supervise Missile Maintenance Personnel (AFSC 443X0E)
- plan work assignments
- evaluate compliance with maintenance policies or procedures
- analyze maintenance or inspection reports
- evaluate inspection reports or procedures
- establish performance standards for subordinates
- compile information for reports or staff studies

Six of these individuals hold DAFSC 44570F while the remaining member holds DAFSC 44599. The average paygrade for these senior incumbents is E-6 and their average time in service is 191 months, which is the most experienced of all groups identified.

III. TRAINING MANAGEMENT PERSONNEL (GRP017, N=11). The responsibilities of these 11 members include planning, managing, implementing, conducting, and evaluating training. The majority (55 percent) of these members are assigned at wing level; 18 percent are at squadron level; and 27 percent are at branch level. Three of these individuals hold the T prefix designating them as training personnel. Common tasks include:

- prepare training schedules
- maintain training records, charts, or graphs
- advise staff or unit personnel on training matters
- direct or implement training programs other than OJT
- procure training aids, space, or equipment
- administer tests
- score tests
- evaluate training techniques or programs
- compile information for reports or staff studies
- develop lesson plans

Seventy-three percent of these members hold DAFSC 44550F and are assigned to SAC. Forty-six percent of these members are in their first enlistment and have an average grade of E-5. Job satisfaction indicators for training management personnel is fairly positive, although only 36 percent indicated they intend to reenlist.

IV. LOGISTICS PERSONNEL (GRP049, N=5). This small group of respondents performed an average of only 18 tasks, which reflects a rather narrow job. These personnel are responsible for performing functions related

to certifying and tracking the status of reparable items or equipment which involves making entries on numerous forms and records and performing administrative and supply functions. Seventy-six percent of these members' time was spent on tasks related to managing and maintaining equipment accounts and records. Common tasks include:

- make entries on Temporary Issue Receipt forms (AFTO Form 1297)
- make entries on Issue/Turn In Request forms (AF Form 2005)
- inventory equipment, tools, or supplies
- make entries on Non-NSN Requisition (Manual) forms (DD Form 1348-6)
- maintain equipment supply accounts
- make entries on Reparable Item Processing Tag forms (AFTO Form 350)
- make entries on Serviceable Tag-Materiel forms (DD Form 1574)
- make entries on Unserviceable Condemned Tag-Materiel forms (DD Form 1577)
- determine requirements for space, personnel, equipment, or supplies
- prepare changes to equipment authorization list

Members of this group have an average of 137 months TAFMS and an average paygrade of E-5. Four of these personnel hold DAFSC 44570F. Only two members feel their training is adequately utilized. The perceived lack of utilization of training is probably due to the performance of the narrow job described above.

V. ENVIRONMENTAL DEFENSE PERSONNEL (GRP047, N=5). These five members are all assigned to the Cheyenne Mountain Complex. They are responsible for maintaining blast doors and blast valves driven by hydraulic units. These members are also involved with the operation of lifting horses or devices designed to lift up to five tons. They also maintain pneumatic tube systems used to send messages from one office to another. Common tasks include:

- service hydraulic units
- service pneumatic units
- rebuild hydraulic valves
- rebuild pneumatic activators
- rebuild pneumatic cylinders
- rebuild pneumatic valves
- maintain tool kits
- rebuild hydraulic activators
- perform routine or daily inspections of work areas
- rebuild hydraulic cylinders

The job satisfaction indicators for these members generally were positive except for their perceived utilization of training. Only one of the members felt that their training is utilized fairly well or better.

VI. FACILITY ELECTRICIANS (GRP032, N=12). These 12 members are all assigned to SAC. Sixty-seven percent of these members hold DAFSC 44550F and the remaining 33 percent hold DAFSC 44530F. These are junior incumbents having an average grade of E-4, with 84 percent in their first enlistment. These members are primarily responsible for performing electrical maintenance and repairs on Titan II Missile Facilities. Common tasks include:

- travel to and from operational base to missile sites
- remove or replace emergency facility lighting system components
- perform emergency lighting system operational checks
- perform fire sensing and circuitry checkout procedures
- isolate malfunctions on emergency facility lighting system components
- inspect emergency lighting systems
- isolate malfunctions on silo elevator system components
- remove or replace normal facility lighting system components
- isolate malfunctions on access portal elevator system components
- perform missile complex entrance procedures

Generally, these members indicated positive job satisfaction; however, only 50 percent intend to reenlist.

VII. ENVIRONMENTAL SERVICES AND WATER SYSTEMS PERSONNEL (GRP046, N=29). These 29 members maintain water systems and perform environmental services functions. Their job commonly includes: inspecting, removing and replacing, adjusting, and isolating malfunctions of water systems and components. These members perform an average of 108 tasks which is the second highest average of all groups described. Common tasks include:

- clean and inspect water strainers
- perform plumbing shutoff
- travel to or from operational base to missile sites
- load or unload equipment to or from trucks at operational base
- adjust emergency showers and eye washers
- remove or replace water strainers
- remove or replace water pumps
- isolate malfunctions on domestic water system components
- adjust chilled water system components
- isolate malfunctions on fire prevention and protection systems

Eighty-three percent of these incumbents hold DAFSC 44550F; three percent hold DAFSC 44530F, and the remaining seven percent hold DAFSC 44570F. Slightly over half (55 percent) perceive their job as interesting and slightly less than half (41 percent) intend to reenlist.

VIII. QUALITY CONTROL AND EVALUATION PERSONNEL (GRP051, N=6). Four of these six members report a job title of Quality Control or Inspector and two as Missile Facility Command Evaluator. These personnel are involved with evaluating compliance with standards, performing inspections to ensure proper standards and capabilities, and other quality control functions involving missile facilities and personnel. These incumbents have the highest paygrade (E-6) and perform the highest average number of tasks (146) of all groups reported. Common tasks include:

- perform completed maintenance inspections
- prepare missile personnel evaluations
- evaluate quality control procedures
- evaluate compliance with performance standards
- evaluate missile personnel evaluation programs
- evaluate inspection reports or procedures
- compile information for reports or staff studies
- inspect protective equipment
- evaluate maintenance or use of workspace, equipment, or supplies
- analyze maintenance or inspector reports
- perform in-progress or end-item inspections

All of these members hold DAFSC 44570F and are in SAC. Job satisfaction indicators for these members are high and all but one member indicated they planned to reenlist. The Job Difficulty Index (JDI) for this job is the highest (19.2) of all jobs identified, indicating that they are performing the most difficult job within the career ladder.

IX. REAL PROPERTY INSTALLED EQUIPMENT (RPIE) PERSONNEL (GRP090, N=16). This group is comprised of 16 individuals who perform a combination of functions which involve the major systems that make up the missile facility. These include air conditioning, heating and refrigeration, plumbing, water treatment, and diesel engines. Fifty-nine percent of these members' job time was spent performing air conditioning, heating, and refrigeration system functions. These members perform an average of 92 tasks. Typical tasks include:

- perform water chiller operational checks
- inspect water chillers
- inspect refrigeration systems
- isolate malfunctions on launch duct air conditioning systems
- inspect dehumidifier components
- remove or replace air conditioning system components
- perform refrigeration system operational checks
- perform dehumidifier operational checks
- isolate malfunctions on dehumidifier electrical components
- inspect fan units

Sixty-nine percent of these members hold DAFSC 44550F, with an average paygrade of E-4 and an average of 65 months TAFMS. Fifty percent of these members indicated that their jobs were interesting; 75 percent felt that their training and talents were well utilized; and 56 percent intend to reenlist.

X. FACILITY ELECTRICAL POWER PRODUCTION PERSONNEL (GRP079, N=15). These personnel are involved with diesel engines and are primarily responsible for electrical power production. Sixty-two percent of these members' job time was spent performing facility electric and power production functions. Fifty-three percent of these respondents are in their first enlistment and perform an average of 130 tasks. Although these members may appear similar to the Facility Electrical Maintenance personnel previously described, (Group VI), the main distinction is that the present group is more involved with facility electric power production, while the former group is more involved with facility electrical repairs. Common tasks include:

- perform diesel engine shutdown procedures
- perform diesel engine manual startup procedures
- inspect diesel engine components
- perform manual transfer to standby power checklist procedures
- perform missile complex power switching at 480 volt switchgear
- perform diesel engine component operational checks
- perform missile complex entrance procedures
- remove or replace diesel engine exhaust cooling system components
- service diesel lubricating oil systems
- perform electrical power generation system checkout procedures

Eighty percent of these personnel hold DAFSC 42550F and the remaining 20 percent hold DAFSC 42570F. These personnel have an average grade of E-4, with an average of 79 months TAFMS. Job satisfaction for these members is relatively high and 80 percent intend to reenlist.

XI. WATER TREATMENT PERSONNEL (GRP052, N=9). These personnel are primarily responsible for maintaining the water systems, which involves testing, treating, inspecting, and repairing water systems and components. Forty-four percent of these members' job time was spent performing environmental services and water system functions and another 23 percent on general missile facility functions. These members have an average paygrade of E-4, with an average of 51 months TAFMS, and perform an average of 33 tasks. Common tasks include:

- test for chlorine residue
- test for pH
- test for water hardness
- calculate chloride ratios
- treat for chloride ratios
- chemically treat chilled water systems

adjust chemical injection pumps
inspect chemical injection pumps
perform missile complex entrance procedures
isolate malfunctions on chemical feeders

All members are assigned to SAC. Seven of these members are in their first enlistment. As to job satisfaction, only three members indicated their job was interesting, which is the lowest of all groups reported. Five of the nine members indicated they intend to reenlist.

COMPARISON OF SPECIALTY JOBS

Jobs within this specialty vary in terms of systems of the maintenance facility maintained, number and type of tasks performed, and other factors. In order to contrast these differences, several tables were developed which summarize information about specialty groups (see Tables 4, 5, and 6).

The job difficulty for each of the major functional groups as estimated by the Job Difficulty Index (JDI) varies substantially, as can be seen in Table 7. For this specialty, the index ranges from a high of 19.2 for Quality Control and Evaluation Personnel, who perform an average of 146 tasks, to a low of 6.0 for Logistics Personnel, who perform an average of only 18 tasks.

Like most AFSCs, supervisory and management functions, including training, maintenance control, and quality control, are given the highest difficulty ratings. In the 445X0F specialty, these individuals typically performed more tasks and have the highest computed job difficulty of all major job groups. The Quality Control and Evaluation job group required the performance of the broadest range of tasks and had the highest JDI. Other job groups with high JDI ratings included Facility Electrical Production Personnel, Environmental Services and Water System Personnel, and Facility Electricians.

Expressed job interest was rated high overall, with only four groups reflecting less than 60 percent of the group members reporting positive perceptions of interest in current job. Utilization of training and talents also rated high for members of the identified job groups, with only two groups reflecting less than 60 percent of the group members' reporting positive perception of utilization of training and talents. It should be noted that these two groups (Environmental Defense and Water Treatment Personnel) perform limited specialized jobs.

Reenlistment intent varied from a high of 100 percent for Environmental Defense personnel (who perform a very specialized function) to a low of 36 percent for Training Management personnel.

Overall, job satisfaction for the groups identified in the career ladder structure analysis generally was high. The groups which indicated low job satisfaction indexes included small numbers of incumbents who performed limited or specialized jobs.

TABLE 5

BACKGROUND INFORMATION FOR CLUSTERS AND INDEPENDENT JOB TYPES

	MAINT CONTROL			SUPERVISORY			TNG			LOG		
	JOB TYPES			JOB TYPES			JOB TYPES			JOB TYPES		
	MAINT CONT (GRP041) N=11)	JOB CONT (GRP050) N=5)	SR CONT (GRP048) N=6)	SUPV PERS (GRP044) N=14)	QC PERS (GRP054) N=7)	SUPV AND TNG PERS (GRP058) N=7)	AND TNG PERS (GRP017) N=11)	AND TNG PERS (GRP017) N=11)	AND TNG PERS (GRP017) N=11)	AND TNG PERS (GRP049) N=5)	AND TNG PERS (GRP049) N=5)	AND TNG PERS (GRP049) N=5)
NUMBER PERSONNEL IN JOB GROUP	11	5	6	14	7	7	7	11	5	5	5	5
AVERAGE NUMBER TASKS PERFORMED	18	11	24	67	46	88	88	22	18	18	18	18
AVERAGE TASK DIFFICULTY PER UNIT TIME SPENT	4.8	4.8	4.8	4.9	4.9	4.8	4.8	4.5	4.3	4.3	4.3	4.3
JOB DIFFICULTY INDEX	16.6	8.0	9.6	14.7	13.1	16.2	16.2	9.2	6.0	6.0	6.0	6.0
AVERAGE PAY GRADE	E-5	E-5	E-6	E-6	E-6	E-6	E-6	E-5	E-5	E-5	E-5	E-5
DUTY AFSC												
44530F	9	-	17	-	-	-	-	-	-	-	-	-
44550F	36	60	17	-	-	-	-	73	20	20	20	20
44570F	55	40	66	93	86	100	100	27	80	80	80	80
44599	-	-	-	7	14	-	-	-	-	-	-	-
MAJOR COMMAND												
SAC	100	100	100	93	100	86	86	73	100	100	100	100
AFSC	-	-	-	-	-	-	-	-	-	-	-	-
ATC	-	-	-	7	-	14	14	27	-	-	-	-
OTHER	-	-	-	-	-	-	-	-	-	-	-	-
AVERAGE MONTHS TAFMS	108	88	125	183	191	175	175	85	137	137	137	137
PERCENT IN FIRST-ENLISTMENT	0	0	0	0	0	0	0	46	0	0	0	0

TABLE 5 (CONTINUED)
BACKGROUND INFORMATION FOR CLUSTERS AND INDEPENDENT FOB TYPES

NUMBER PERSONNEL IN JOB GROUP													
AVERAGE NUMBER TASKS PERFORMED													
AVERAGE TASK DIFFICULTY PER UNIT TIME SPENT													
JOB DIFFICULTY INDEX													
AVERAGE PAY GRADE													
DUTY AFSC													
MAJOR COMMAND													
AVERAGE MONTHS TAFHS													
PERCENT IN FIRST-ENLISTMENT													
ENVR	SVCS	QC	ENVR	FAC	ENVR	DEF	ENVR	DEF	ENVR	DEF	ENVR	DEF	ENVR
AND	WATER	CONT	AND	ELECT	DEF	DEF	DEF	DEF	DEF	DEF	DEF	DEF	DEF
AND	SYS	EVAL	SYS	(GRP032)	(GRP047,	(GRP046)	(GRP051)	(GRP090)	(GRP079)	(GRP052)	(GRP079)	(GRP052)	(GRP052)
				N=12)	N=5)	N=29)	N=6)	N=16)	N=15)	N=9)	N=15)	N=9)	N=9)
5	29	6	16	12	39	108	146	92	15	9	15	33	9
39	59	5.1	4.4	5.1	4.4	4.9	5.1	4.9	4.7	4.0	4.7	4.0	4.0
9.6	14.9	19.2	16.5	14.9	9.6	17.5	19.2	16.5	17.0	6.4	17.0	6.4	6.4
E-5	E-4	E-6	E-4	E-4	E-5	E-4	E-6	E-4	E-4	E-4	E-4	E-4	E-4
-	33	-	19	33	-	7	-	19	-	11	-	11	11
60	67	-	69	67	-	83	-	69	80	89	80	89	89
40	-	100	12	-	10	10	100	12	20	-	20	-	-
44599	-	-	-	-	-	-	-	-	-	-	-	-	-
-	100	97	94	100	-	97	100	94	100	100	100	100	100
-	-	0	-	-	-	0	-	-	-	-	-	-	-
-	-	3	6	-	-	3	-	6	-	-	-	-	-
100	-	-	-	-	-	-	-	-	-	-	-	-	-
99	33	62	65	33	99	62	143	65	79	51	79	51	51
0	84	55	44	84	0	55	0	44	53	78	53	78	78

TABLE 6

JOB SATISFACTION INFORMATION FOR CLUSTERS AND INDEPENDENT JOB TYPES
(PERCENT MEMBERS RESPONDING)

	MAINT CONTROL				SUPERVISORY			
	JOB TYPES				JOB TYPES			
	MAINT CONT (GRP041, N=11)	JOB CONT (GRP050, N=5)	SR JOB CONT (GRP048, N=6)	SUPV PERS (GRP044, N=14)	SUPV AND QC CONT PERS (GRP054, N=7)	SUPV AND TNG PERS (GRP058, N=7)	TNG MGT PERS (GRP017, N=11)	LOG PERS (GRP049, N=5)
<u>FIND MY JOB:</u>								
DULL	-	-	-	7	-	14	9	20
SO-SO	9	-	17	21	14	29	18	20
INTERESTING	91	100	83	72	86	57	73	60
<u>MY JOB UTILIZES MY TALENTS:</u>								
NOT AT ALL OR VERY LITTLE	9	-	17	14	-	29	9	20
FAIRLY WELL OR BETTER	91	100	83	86	100	71	91	80
<u>MY JOB UTILIZES MY TRAINING:</u>								
NOT AT ALL OR VERY LITTLE	-	-	-	29	14	43	46	60
FAIRLY WELL OR BETTER	100	100	100	71	86	57	54	40
<u>I PLAN TO RETIRE:</u>								
NO (I WILL RETIRE WITH AT LEAST 20 YEARS SERVICE)	-	-	-	29	14	43	-	20
NO OR PROBABLY NO	18	20	17	7	14	-	64	20
YES OR PROBABLY YES	82	80	83	64	72	57	36	60

TABLE 6 (CONTINUED)

JOB SATISFACTION INFORMATION FOR CLUSTERS AND INDEPENDENT JOB TYPES
(PERCENT MEMBERS RESPONDING)

	ENVR DEF (GRP047, N=5)	FAC ELECT (GRP032, N=12)	ENVR SVCS AND WATER SYS (GRP046, N=29)	QC CONT AND EVAL (GRP051, N=6)	RPIE PERS (GRP090, N=16)	FAC FWR PROD (GRP079, N=15)	WATER TREAT PERS (GRP052, N=9)
<u>FIND MY JOB:</u>							
BULL	20	17	31	-	25	7	45
SO-SO	-	17	14	-	25	13	22
INTERESTING	80	66	55	100	50	80	33
<u>MY JOB UTILIZES MY TALENTS:</u>							
NOT AT ALL OR VERY LITTLE	20	25	41	-	25	20	67
FAIRLY WELL OR BETTER	80	75	59	100	75	80	33
<u>MY JOB UTILIZES MY TRAINING:</u>							
NOT AT ALL OR VERY LITTLE	80	17	31	-	25	20	44
FAIRLY WELL OR BETTER	20	83	69	100	75	80	56
<u>I PLAN TO REENLIST:</u>							
NO (I WILL RETIRE WITH AT LEAST 20 YEARS SERVICE)	-	-	-	-	-	7	11
NO OR PROBABLY NO	-	50	59	-	44	13	33
YES OR PROBABLY YES	100	50	41	83	56	80	56

TABLE 7

JOB DIFFICULTY INDEX (JDI) FOR CAREER LADDER GROUPS

	<u>AVERAGE NUMBER OF TASKS PERFORMED</u>	<u>JOB DIFFICULTY INDEX</u>
QUALITY CONTROL AND EVALUATION PERSONNEL (GRP051, N=6)	146	19.2
ENVIRONMENTAL SERVICES AND WATER SYSTEMS PERSONNEL (GRP046, N=29)	108	17.5
FACILITY ELECTRICAL POWER PRODUCTION PERSONNEL (GRP079, N=15)	130	17.0
REAL PROPERTY INSTALLED EQUIPMENT (RPIE) PERSONNEL (GRP090, N=16)	92	16.5
FACILITY ELECTRICIANS (GRP032, N=12)	59	14.9
SUPERVISORY PERSONNEL (GRP044, N=14)	67	14.7
ENVIRONMENTAL DEFENSE PERSONNEL (GRP047, N=5)	39	9.6
TRAINING MANAGEMENT PERSONNEL (GRP017, N=11)	22	9.2
MAINTENANCE CONTROLLERS (GRP041, N=11)	18	8.8
WATER TREATMENT PERSONNEL (GRP052, N=9)	33	6.4
LOGISTICS PERSONNEL (GRP049, N=5)	18	6.0

ANALYSIS OF DAFSC GROUPS

In addition to the identification and analysis of jobs within the Missile Facility career ladder, skill-level groups within the specialty sample were also examined. This analysis revealed similarities and differences between skill-level groups in relation to the tasks performed and relative percentages of time spent on particular tasks or duties. This information may also be useful in determining the accuracy of career ladder documents, such as AFR 39-1 Specialty Descriptions and the Specialty Training Standard (STS).

The DAFSC analysis of the 445X0F specialty will discuss the duties and tasks common to the skill-level groups, as well as the tasks which best differentiate 3-, 5-, and 7-skill level respondents. DAFSC 445X0 shreds (445X0E, 445X0F, and 445X0G) and AFS 445X1, were not surveyed in this sample.

As personnel progress through the 445X0F specialty, incumbents typically spend less time on Missile Facility Maintenance and an increasingly greater percentage of their job time on supervisory and managerial functions (see Table 8). Trends such as these reflect a common utilization and progression pattern. Similar to most career ladders, incumbents upgrade from the 3-skill level to the 5-skill level within the first year of their entry into the 445X0F career ladder.

Overall, the responsibilities of the 3- and 5-skill level incumbents are similar. Only 12 members make up the 3-skill level group. Both of these groups have a primarily technically-oriented job, with 74 percent (DAFSC 44530F) and 61 percent (DAFSC 44550F) of their job time devoted to maintaining and repairing missile facility systems. As is evident by the way in which they are distributed among job groups, 5-skill level personnel perform a slightly broader job than 3-skill level personnel (see Table 10). In general, only minor task differences were noted between the two groups, although, as demonstrated by Table 8, the 3-skill level respondents spent a greater percentage of their job time performing facility system maintenance functions, such as checking out or isolating malfunctions on emergency lighting systems, facility lighting systems, sensing and circuitry, or access portal elevator systems. Table 9 provides a list of tasks which best differentiate between the two groups. As illustrated by this table, personnel holding DAFSC 44550F performed slightly larger percentages of training, supervisory, and administrative tasks, and are more involved in technical functions than personnel holding DAFSC 44530F.

In comparison, most incumbents holding DAFSC 44570F are predominantly involved with performing supervisory, administrative, and managerial functions, although some were also found in technically-oriented job groups (see Table 10). The 7-skill level job primarily involved such tasks as preparing APRs; counseling subordinates; interpreting policies, directives, or procedures for subordinates; planning work assignments; and evaluating compliance with performance standards.

Table 11 presents those tasks which most clearly differentiate the DAFSC 44570F group from the DAFSC 44550F respondents. Lower percentages of DAFSC 44570F airmen were found to be performing general maintenance tasks, such as performing checks and inspections, missile complex entrance procedures, and loading or unloading equipment to or from trucks at operational bases or missile sites. Overall, 7-skill level respondents reported spending about 26 percent of their job time on maintenance tasks, while 5-skill level respondents reported spending 61 percent of their time on similar tasks.

TABLE 8

RELATIVE PERCENTAGE OF TIME SPENT PERFORMING DUTIES BY DAFSC GROUPS

DUTIES	TOTAL SAMPLE (N=163)	DAFSC 44530F (N=12)	DAFSC 44550F (N=86)	DAFSC 44570F (N=49)
A ORGANIZING AND PLANNING	10	4	7	13
B DIRECTING AND IMPLEMENTING	12	7	8	18
C INSPECTING AND EVALUATING	7	5	4	14
D TRAINING	8	2	7	12
E PERFORMING ADMINISTRATIVE FUNCTIONS	13	8	13	17
F PERFORMING AIR CONDITIONING, HEATING, AND REFRIGERATION SYSTEMS FUNCTIONS	8	15	10	4
G PERFORMING ENVIRONMENTAL SERVICING AND WATER SYSTEMS FUNCTIONS	16	18	22	5
H PERFORMING FACILITY ELECTRIC AND POWER PRODUCTION SYSTEMS FUNCTIONS	12	26	13	6
I PERFORMING HYDRAULIC, PNEUMATIC, AND MISCELLANEOUS SYSTEMS FUNCTIONS	4	3	3	6
J PERFORMING GENERAL MISSILE FACILITIES FUNCTIONS	9	12	12	5
K PERFORMING REFURBISHMENT FUNCTIONS	1	*	1	*

*INDICATES LESS THAN ONE PERCENT

TABLE 9

EXAMPLES OF TASKS WHICH BEST DIFFERENTIATE DAFSC: 44530F AND 44550F
(PERCENT MEMBERS PERFORMING)

TASKS	DAFSC 44530F (N=12)	DAFSC 44550F (N=86)	DIFFERENCES
H322 INSPECT 480 SWITCH GEAR ELECTRICAL COMPONENTS	33	12	+21
H338 ISOLATE MALFUNCTIONS ON EMERGENCY FACILITY LIGHTING SYSTEM COMPONENTS	33	13	+20
H371 PERFORM FIRE SENSING AND CIRCUITRY CHECKOUT PROCEDURES	33	13	+20
H369 PERFORM EMERGENCY LIGHTING SYSTEM OPERATIONAL CHECKS	33	14	+19
H372 PERFORM FIRE SENSING SYSTEM ELECTRICAL COMPONENT OPERATIONAL CHECKS	33	16	+17
H318 INSPECT FIRE SENSING SYSTEM ELECTRICAL COMPONENTS	33	16	+17
.	.	.	.
.	.	.	.
E128 MAKE ENTRIES ON ISSUE/TURN IN REQUEST FORMS (AF FORM 2005)	17	42	-25
E140 MAKE ENTRIES ON REPARABLE ITEM PROCESSING TAG FORMS (AFTO FORM 350)	8	33	-25
D107 MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	0	23	-23
G256 PERFORM FIRE PROTECTION AND PREVENTION SHUTDOWN PROCEDURES	8	29	-21
E134 MAKE ENTRIES ON NON-NSN REQUISITION (MANUAL) FORMS (DD FORM 1348-6)	0	20	-20
E132 MAKE ENTRIES ON MAINTENANCE DATA COLLECTION RECORD FORM (AFTO FORM 349)	42	60	-19

TABLE 10

**SKILL LEVEL DISTRIBUTION IN JOB GROUPS
(NUMBER OF PEOPLE RESPONDING)**

	DAFSC		
	<u>44530F</u>	<u>44550F</u>	<u>44570F</u>
FACILITY ELECTRICIANS (GRP032)	4	8	-
REAL PROPERTY INSTALLED EQUIPMENT (RPIE) PERSONNEL (GRP090)	3	11	2
ENVIRONMENTAL SERVICES AND WATER SYSTEMS PERSONNEL (GRP046)	2	24	3
WATER TREATMENT PERSONNEL (GRP052)	1	8	-
MAINTENANCE CONTROLLERS (GRP041)	2	4	6
FACILITY ELECTRICAL POWER PRODUCTION PERSONNEL (GRP079)	-	12	3
ENVIRONMENTAL DEFENSE PERSONNEL (GRP047)	-	3	2
LOGISTICS PERSONNEL (GRP049)	-	1	4
TRAINING MANAGEMENT PERSONNEL (GRP017)	-	8	3
QUALITY CONTROL AND EVALUATION PERSONNEL (GRP051)	-	-	6
SUPERVISORY PERSONNEL (GRP044)	-	-	14

TABLE 11

EXAMPLES OF TASKS WHICH BEST DIFFERENTIATE DAFSCs 44550F AND 44570F
(PERCENT MEMBERS PERFORMING)

TASKS		DAFSC 44550F (N=86)	DAFSC 44570F (N=49)	DIFFERENCE
J462	TRAVEL TO OR FROM OPERATIONAL BASE TO MISSILE SITES	62	33	+29
J453	LOAD OR UNLOAD EQUIPMENT TO OR FROM TRUCKS AT OPERATIONAL BASE	58	31	+27
J454	LOAD OR UNLOAD EQUIPMENT TO OR FROM TRUCKS AT MISSILE SITES	56	31	+25
G283	REMOVE OR REPLACE WATER STRAINERS	37	12	+25
G222	CLEAN AND INSPECT WATER STRAINERS	37	14	+23
E132	MAKE ENTRIES ON MAINTENANCE DATA COLLECTION RECORD FORMS (AFTO FORM 349)	60	39	+21
.
.
C77	PREPARE APRs	17	65	-48
B26	COUNSEL PERSONNEL ON PERSONAL OR MILITARY-RELATED PROBLEMS	19	63	-44
B38	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	14	53	-39
A15	PLAN WORK ASSIGNMENTS	8	45	-37
C51	ANALYZE MAINTENANCE OR INSPECTION REPORTS	9	43	-34
C55	EVALUATE COMPLIANCE WITH PERFORMANCE STANDARDS	12	45	-33

ANALYSIS OF EXPERIENCE (TAFMS) GROUPS

An analysis was also made comparing tasks and job differences among individuals grouped by time in service (TAFMS) to determine how personnel utilization patterns change as experience increases. Table 12 provides a list of the relative amounts of time spent on duties by members of each TAFMS group. As is typical in most specialties, as the level of experience increases, respondents spent increasingly greater percentages of their job time performing supervisory and management functions. As is indicated by the data in the table, there is a gradual increase through the 193-240 months TAFMS period. While incumbents in the 145-192 months TAFMS group still report spending nearly 41 percent of their job time on administrative and technical-related functions, respondents in the 193-240 months TAFMS group spent 34 percent of their job time in those areas. The 241+ TAFMS group performed exclusively administrative, supervisory, and management functions.

Job satisfaction information, when compared to combined data from other related specialties recently surveyed, provided indications relative to the attitudes or intentions of specialty incumbents about such factors as job interest, perceived utilization of talents and training, and reenlistment intents. The comparative data includes all non-lateral Mission Equipment Maintenance specialties surveyed in 1981.

Table 13 compares the responses of all 445X0F respondents and those of the comparative sample (all non-lateral studies in 1981) by enlistment groups. Several trends were noted in these responses. The overall job satisfaction data (job interest, perceived utilization of talents and training), with the exception of the 1-48 months TAFMS group, are slightly higher in 445X0F TAFMS groups versus those of the comparative sample. The 1-48 months TAFMS group have somewhat lower job satisfaction indicators, with approximately nine percent less finding their job interesting, and about 10 percent less finding their job utilizes their training fairly well to perfect. Reenlistment intentions for the 445X0F 1-48 months TAFMS group are slightly higher than those of the comparative sample (44 percent versus 42 percent, respectively). Personnel within the 49-96 months TAFMS, and those with subsequent amounts of time in service, show a slightly increasing trend in perceived utilization of talents and training and reenlistment intents. Of some concern is the slight decrease in perceived utilization of talent experienced by 445X0F personnel. As the time in service increases, from 1-48 months to 49-96 months, the perceived utilization of training was lower for 445X0F personnel and the same time period group of the comparative sample group.

First-enlistment personnel were also examined on the basis of common tasks performed and other background information. Table 14 lists those tasks performed by the greater percentages of 445X0F first-enlistment (1-48 months TAFMS) incumbents. Generally, the most common tasks involved facility maintenance, and include traveling to and from operational bases to missile sites, loading or unloading equipment to or from trucks at operational bases or missile sites, performing missile complex entrance procedures, or performing routine daily inspections of work areas.

Even though the tasks listed in Table 14 are characteristic of most first-enlistment personnel, some variation in functions performed is evident, depending on the job they perform. Figure 2 presents the distribution of first-enlistment 445X0F personnel across job groups identified in the career ladder structure section. The largest number of first-enlistment personnel are found in the Environmental Services and Water Systems job group. Of the 11 major job groups identified, first-term personnel were found working in the six most technically-oriented jobs, while they were not represented in the supervisory- and management-oriented jobs.

FIGURE 2

DISTRIBUTION OF FIRST-ENLISTMENT PERSONNEL
ACROSS CAREER LADDER JOBS (PERCENT MEMBERS RESPONDING)
(N=61)

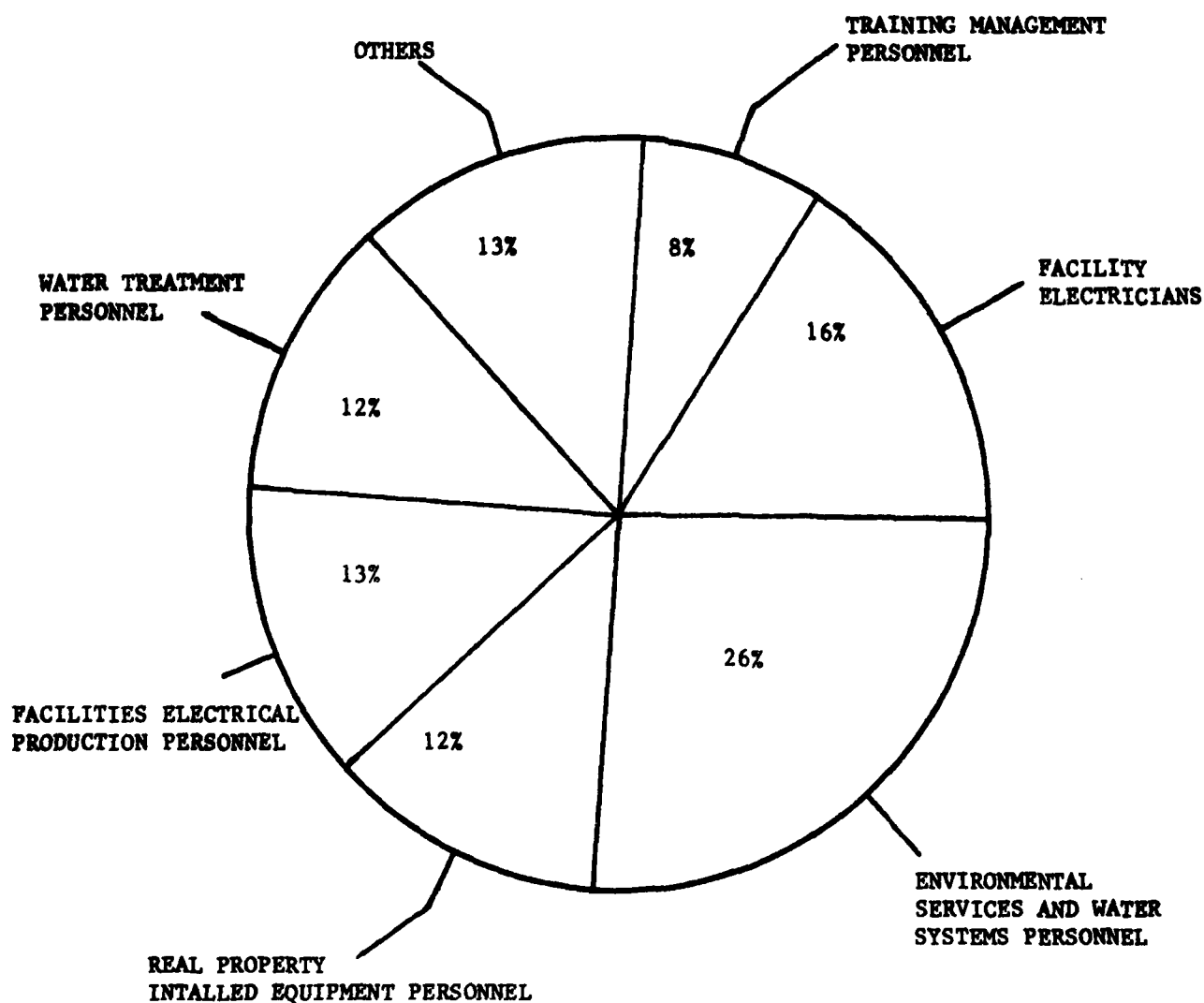


TABLE 12

RELATIVE TIME SPENT ON DUTIES BY TAFMS GROUPS

DUTIES	MONTHS TAFMS					
	1-48 (N=61)	49-96 (N=44)	97-144 (N=20)	145-192 (N=16)	193-240 (N=16)	241+ (N=2)
<u>SUPERVISORY</u>						
A ORGANIZING AND PLANNING	7	9	7	19	15	15
B DIRECTING AND IMPLEMENTING	5	11	18	23	23	8
C INSPECTING AND EVALUATING	2	6	13	9	21	12
D TRAINING	6	7	12	8	7	59
<u>ADMINISTRATIVE</u>						
E PERFORMING ADMINISTRATIVE FUNCTIONS	11	16	12	17	15	6
<u>TECHNICAL</u>						
F PERFORMING AIR CONDITIONING, HEATING, AND REFRIGERATION SYSTEMS FUNCTIONS	10	12	2	1	3	-
G PERFORMING ENVIRONMENTAL SERVICING AND WATER SYSTEMS FUNCTIONS	26	16	4	11	2	-
H PERFORMING FACILITY ELECTRIC AND POWER PRODUCTION SYSTEMS FUNCTIONS	18	8	11	2	10	-
I PERFORMING HYDRAULIC, PNEUMATIC, AND MISCELLANEOUS SYSTEMS FUNCTIONS	3	5	9	2	2	-
J PERFORMING GENERAL MISSILE FACILITIES FUNCTIONS	12	10	7	7	2	-
K PERFORMING REFURBISHMENT FUNCTIONS	*	*	5	-	-	-

*DENOTES LESS THAN ONE PERCENT

TABLE 13

**JOB SATISFACTION DATA FOR TAFMS GROUPS
(PERCENT MEMBERS RESPONDING)***

	1-48 MONTHS		49-96 MONTHS		97+ MONTHS	
	1981	1981	1981	1981	1981	1981
	445XOF RESPONDENTS (N=61)	COMPARATIVE SAMPLE (N=14,780)	445XOF RESPONDENTS (N=44)	COMPARATIVE SAMPLE (N=5,216)	445XOF RESPONDENTS (N=54)	COMPARATIVE SAMPLE (N=9,868)
I FIND MY JOB:						
DULL	30	17	11	16	7	11
SO-SO	18	21	16	19	13	15
INTERESTING	52	61	73	64	80	73
NOT REPORTED	-	1	-	1	-	1
MY JOB UTILIZES MY TALENTS:						
NOT AT ALL TO VERY LITTLE	44	32	16	27	11	20
FAIRLY WELL TO PERFECTLY	56	67	84	72	89	79
NOT REPORTED	-	1	-	1	-	1
MY JOB UTILIZES MY TRAINING:						
NOT AT ALL TO VERY LITTLE	33	25	34	25	19	22
FAIRLY WELL TO PERFECTLY	67	74	66	73	79	77
NOT REPORTED	-	1	-	1	2	1
I PLAN TO REENLIST:						
NO I WILL RETIRE	-	-	-	-	18	-
NO OR PROBABLY NO	56	55	32	40	11	33
YES OR PROBABLY YES	44	42	68	55	67	63
NOT REPORTED	-	3	-	5	4	4

*COMPARATIVE SAMPLE TAKEN FROM ALL MISSION EQUIPMENT MAINTENANCE SPECIALTIES SURVEYED IN 1981; INCLUDES AFSCs 30XXX, 31XXX, 32XXX, 34XXX, 36XXX, 40XXX, 42XXX, 43XXX, 44XXX, AND 46XXX.

TABLE 14

REPRESENTATIVE TASKS PERFORMED BY 445XOF
FIRST-ENLISTMENT (1-48 MONTHS TAFMS) PERSONNEL

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
J462 TRAVEL TO OR FROM OPERATIONAL BASE TO MISSILE SITES	66
J458 PERFORM MISSILE COMPLEX ENTRANCE PROCEDURES	66
E152 PREPARE DANGER TAGS (AF FORM 1492)	66
J453 LOAD OR UNLOAD EQUIPMENT TO OR FROM TRUCKS AT OPERATIONAL BASE	64
J454 LOAD OR UNLOAD EQUIPMENT TO OR FROM TRUCKS AT MISSILE SITES	62
J451 CLEAN SHOP FACILITIES	61
E132 MAKE ENTRIES ON MAINTENANCE DATA COLLECTION RECORD FORMS (AFTO FORM 349)	57
J457 PARTICIPATE IN PREDISPATCH BRIEFINGS	56
J456 MAINTAIN TOOL KITS	56
J459 PERFORM OPERATOR MAINTENANCE ON MOTOR VEHICLES	48
A4 DETERMINE WORK PRIORITIES	41
A17 PROVIDE TECHNICAL ADVICE TO MISSILE CREW COMMANDERS, STAFF AGENCIES, OR MISSILE CREWS	39
B39 INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	39
G222 CLEAN AND INSPECT WATER STRAINERS	39
G283 REMOVE OR REPLACE WATER STRAINERS	39
J452 COORDINATE MAINTENANCE WITH JOB CONTROL	39
J460 PERFORM OPERATOR MAINTENANCE ON SHOP EQUIPMENT	38
J461 PERFORM ROUTINE OR DAILY INSPECTIONS OF WORK AREAS	38
G232 ISOLATE MALFUNCTIONS ON COOLING WATER SYSTEM COMPONENTS	36
G224 INSPECT CHILLED WATER SYSTEMS	34
E136 MAKE ENTRIES ON OPERATOR'S INSPECTION GUIDE AND TROUBLE REPORT (GENERAL PURPOSE VEHICLES) FORMS (AFTO FORM 374)	33
E128 MAKE ENTRIES ON ISSUE/TURN IN REQUEST FORMS (AF FORM 2005)	33
G259 PERFORM FIRE WATER SYSTEM CHECKOUT PROCEDURES	31

TRAINING ANALYSIS

Occupational survey data are one of the many sources of information that can be used as a guide in developing training programs for first-termers. In conjunction with the TAFMS analysis just completed, training development personnel may use training emphasis and task difficulty ratings to evaluate the Specialty Training Standard (STS) and the Plan of Instruction (POI) for the career ladder. To facilitate such an evaluation, technical school personnel from the Sheppard Technical Training Center matched inventory tasks to appropriate sections of the STS and POI for Course J3ABR44530F. A complete computer listing reflecting training emphasis and task difficulty ratings, percent members performing, and the STS and POI matchings has been forwarded to the technical school for their use in detailed reviews of training documents. A discussion of that information is presented below.

Training Emphasis

Training emphasis for each task in the inventory was assessed through ratings by 20 experienced LGM-25 Missile Facilities maintenance NCOs assigned to Air Force installations providing missile facilities maintenance. Raw data were processed to produce ordered listings of tasks in terms of recommended emphasis in training for first-term enlisted personnel.

The average rating for all tasks included in the job inventory was 3.02, with a standard deviation of 1.70. Tasks receiving ratings of 4.72 or higher may be considered to have relatively high training emphasis. For a more complete description of these ratings, see the section on Task Factor Administration in the INTRODUCTION.

Examples of tasks rated highest in training emphasis are listed in Table 15. As can be seen, these tasks are related to the maintenance of various systems of the LGM-25 missile facility. These systems included air conditioning, refrigeration, water, and heating. These tasks include inspecting water chillers, refrigeration systems, dehumidifier components and fan units, making adjustments and isolating malfunctions on water systems, air conditioning systems and components, fire prevention and protection systems and components, plug valve mechanical components, silo heating and evaporative cooling systems, and dehumidifier components. Slightly less than half of these tasks are performed by 30 percent or more of the first-enlistment personnel and most are average or above in task difficulty.

Task Difficulty

The relative difficulty of each task in the inventory was assessed through ratings of 17 experienced 7-skill level LGM-25 Missile Facility maintenance NCOs. These tasks were processed to produce an ordered listing of all tasks in terms of their relative difficulty and was standardized to have an average difficulty of 5.0 with a standard deviation equal 1.

Table 16 lists those tasks rated the most difficult by 445XOF task difficulty raters. Most of these tasks are maintenance-oriented and involve isolating malfunctions or inspecting or removing and replacing various components or systems of missile facilities. Overall, very few of the most difficult tasks are performed by more than 20 percent of the 445XOF population.

To demonstrate some of the more difficult tasks commonly performed by 445XOF personnel, Table 17 is provided. This table lists those tasks rated above average in difficulty and performed by at least 20 percent of the total 445XOF sample. Isolating malfunctions, removing and replacing systems and components, making adjustments on and inspecting various systems of the missile facility, which involve tasks such as inspecting access portal elevator systems, removing or replacing plug valves, isolating malfunctions on fire protection systems, isolating malfunctions on domestic water systems, performing water system checkout procedures, and isolating malfunctions on cooling water systems, are typical of the tasks which 445XOF personnel perceive as above average in difficulty and are fairly commonly performed.

Specialty Training Standards (STS) 445XOF

The 445XOF Specialty Training Standard (STS), dated April 1980, was compared with survey data. Each paragraph was reviewed using training emphasis, task difficulty, and percent members performing information. Overall, the items of the STS are fairly well supported by occupational survey data.

A review of tasks not referenced to any of the STS paragraphs revealed that 133 tasks were not included in the STS. Only 34 of these not referenced tasks were rated average or above in training emphasis and 24 were average in task difficulty (see Table 18). Several of these non-referenced tasks were performed by 30 percent or more of first-term personnel and probably should be included in future revisions of the STS. The tasks involved relate to fire protection systems, domestic water systems, chilled water systems, and contaminated waste water systems. Training personnel should review the list of tasks not referenced to determine whether the task is actually described by an existing paragraph or whether the tasks indicate a need for training that is not included in the current STS.

Analysis of 445XOF Plan of Instruction

The Plan of Instruction (POI) for Course J3ABR44530F, dated June 1980, was also evaluated, using tasks matched by training personnel from Sheppard Technical Training Center to the criterion objectives (CO), task difficulty ratings, training emphasis ratings, and percent of first-enlistment personnel performing information. This course was reviewed for appropriateness of instruction as evidenced by tasks performed by 445XOF survey respondents. The results of the tasks matched to POI objectives are presented in a separate computer printout (FCPRT3) within the computer extract printout of this report. Generally, these matchings provide data which can be used as a

basis for considering what items should be taught in the basic course based on tasks performed by personnel during their first job (1-24 months TAFMS) or first enlistment (1-48 months TAFMS) in this DAFSC. The occupational survey data basically supported nearly all of the COs which had annotated tasks. One exception is Block II, which deals with Electrical Fundamentals. In several instances, criterion objectives do not have tasks identified as relating to them; however, these COs are within units of instruction with related COs which are supported. For example, Block III, Unit 1, COs "a" and "b", do not have tasks which lend support, but COs "c" and "e" of the same unit have tasks annotated, which implies a prerequisite relationship between the annotated tasks and the total unit.

A substantial number of tasks (237) covering a variety of duty areas were not referenced to any section of the POI. Of the 237 items not referenced, only 79 were rated average or above in training emphasis. Fourteen of the 79 items rated average or above in training emphasis were performed by at least 30 percent of first-enlistment personnel. Table 19 provides a list of most of those tasks rated above average in training emphasis performed by first-enlistment personnel which were not referenced to any objective of the POI. As this table demonstrates, some tasks primarily involved maintaining facility systems such as fire water systems, cooling water systems, fire prevention and protection systems, chilled water systems, domestic water systems, contaminated water systems, air conditioning systems, and refrigeration systems. Based on the substantial number of non-referenced tasks, training personnel are encouraged to review those tasks not referenced to the POI to determine whether any unreferenced tasks can be used to support existing objectives or should additional objectives be developed.

Only 21 of all tasks referenced to the POI are performed by 30 percent or more of the first-enlistment personnel. Training personnel should again be encouraged to review the course offering to determine if the needs of the career field incumbents are being adequately met with the basic course and evaluate course content as to the need for both additions and deletions.

The basic course is designed to cover broad aspects of the job of 445X0F incumbents. A form of follow-on or channelized training, managed and implemented by SAC, is available to all DAFSC 445X0F technical school graduates. This training is designed to provide them with training in one of the major areas of specialization (facility electronics, environmental services, refrigeration, power production or team supervision) within the missile facility career field. This training is held at the three SAC bases (Davis-Monthan AFB, Little Rock AFB, and McConnell AFB) having the majority of the DAFSC 445X0F personnel and may range from three to fifteen weeks, depending on the specialty assignment. The inclusion of specialized duties and tasks in the specialized training programs probably enhances the possibility of tasks not matching the basic course POI, but are included within the scope of the other training courses.

During the time the survey instrument was being developed for this study, career field incumbents (particularly SAC personnel) were unhappy with the basic course offering. They felt that it did not adequately prepare graduates to perform in the field and developed follow-on training to better

prepare technical school graduates. These training programs are presently in operation and seem to have solved many of the problems personnel previously faced within this career field. Current data indicate that 445X0F personnel generally feel their jobs are interesting and the majority perceive their training as being adequately utilized.

TABLE 15
TASKS RATED HIGHEST IN TRAINING EMPHASIS

TASKS	TNG EMP*	PERCENT OF 1-48 MONTHS TAPMS MEMBERS PERFORMING	TASK DIFF**
F202 PERFORM MISSILE COMPLEX AIR BALANCING	5.13	13	7.26
G282 REMOVE OR REPLACE WATER PUMPS	4.91	33	5.95
F170 INSPECT WATER CHILLERS	4.87	23	5.97
G216 ADJUST FIRE WATER SYSTEM COMPONENTS	4.87	30	5.38
G267 PERFORM PLUMBING SHUTOFF	4.87	25	5.64
F203 PERFORM PNEUMATIC ELECTRIC REFRIGERATION CONTROL OPERATIONAL CHECKS	4.83	16	6.19
F169 INSPECT REFRIGERATION SYSTEMS	4.78	16	5.66
F175 ISOLATE MALFUNCTIONS ON CHILLED WATER SYSTEM COMPONENTS	4.74	28	5.83
F182 ISOLATE MALFUNCTIONS ON LAUNCH DUCT AIR CONDITIONING SYSTEMS	4.74	16	6.09
F183 ISOLATE MALFUNCTIONS ON LAUNCH DUCT AIR CONDITIONING SYSTEM COMPONENTS	4.74	16	5.37
G215 ADJUST FIRE PREVENTION AND PROTECTION SYSTEM COMPONENTS	4.74	30	5.51
F205 PERFORM WATER CHILLER OPERATIONAL CHECKS	4.70	15	5.47
G212 ADJUST COOLING WATER SYSTEM COMPONENTS	4.70	34	4.90
G235 ISOLATE MALFUNCTIONS ON FIRE PREVENTION AND PROTECTION SYSTEMS	4.70	33	6.40
G276 REMOVE OR REPLACE FIRE PREVENTION AND PROTECTION SYSTEM COMPONENTS	4.70	31	6.10
G277 REMOVE OR REPLACE FIRE WATER SYSTEM COMPONENTS	4.70	28	5.96
G241 ISOLATE MALFUNCTIONS ON PLUG VALVE MECHANICAL COMPONENTS	4.65	30	5.57
G260 PERFORM FIRE WATER SYSTEM SHUTDOWN PROCEDURES	4.65	26	5.21
G261 PERFORM FIRE WATER SYSTEM STARTUP PROCEDURES	4.65	26	5.41
F185 ISOLATE MALFUNCTIONS ON SILO HEATING AND EVAPORATIVE COOLING SYSTEMS	4.61	18	6.27
F186 ISOLATE MALFUNCTIONS TO PNEUMATIC ELECTRIC CONTROLS	4.61	15	7.29
G233 ISOLATE MALFUNCTIONS ON DOMESTIC WATER SYSTEMS	4.61	28	6.37
G234 ISOLATE MALFUNCTIONS ON DOMESTIC WATER SYSTEM COMPONENTS	4.61	30	6.28
G236 ISOLATE MALFUNCTIONS ON FIRE WATER SYSTEMS	4.61	30	5.72
E132 MAKE ENTRIES ON MAINTENANCE DATA COLLECTION RECORD FORMS (AFTO FORM 349)	4.56	57	3.84
F157 ADJUST AIR CONDITIONING REGULATING VALVES	4.56	15	5.45
F166 INSPECT DEHUMIDIFIER COMPONENTS	4.56	21	5.16
F171 ISOLATE MALFUNCTIONS ON ACCESS PORTAL VENTILATING SYSTEMS	4.56	12	4.13
F176 ISOLATE MALFUNCTIONS ON CONTROL CENTER AIR CONDITIONING SYSTEMS	4.56	16	6.06
F177 ISOLATE MALFUNCTIONS ON CONTROL CENTER AIR CONDITIONING SYSTEM COMPONENTS	4.56	16	

*AVG TNG EMP = 3.02, SD = 1.70

**AVG TASK DIFF = 5, SD = 1

TABLE 16

TASKS HIGH IN TASK DIFFICULTY

TASKS	TASK DIFFICULTY*	PERCENT OF 445XOF PERSONNEL PERFORMING
H355 ISOLATE MALFUNCTIONS ON SILO ELEVATOR SYSTEM COMPONENTS	8.64	18
H354 ISOLATE MALFUNCTIONS ON RETRACTABLE PLATFORM ELECTRICAL COMPONENTS	7.48	7
H357 ISOLATE MALFUNCTIONS ON 480 VOLT SWITCHGEAR ELECTRICAL COMPONENTS	7.45	10
H344 ISOLATE MALFUNCTIONS ON FIRE SENSING SYSTEM ELECTRICAL COMPONENTS	7.35	12
F186 ISOLATE MALFUNCTIONS TO PNEUMATIC ELECTRIC REFRIGERATION CONTROLS	7.29	14
H352 ISOLATE MALFUNCTIONS ON MOBILE PROPELLANT TRANSFER SYSTEM ELECTRICAL COMPONENTS	7.28	4
F202 PERFORM MISSILE COMPLEX AIR BALANCING	7.26	10
H342 ISOLATE MALFUNCTIONS ON FACILITY PROPELLANT TRANSFER SYSTEM ELECTRICAL COMPONENTS	7.25	6
H348 ISOLATE MALFUNCTIONS ON HARD ANTENNA SYSTEM ELECTRICAL COMPONENTS	7.13	6
H320 INSPECT SILO ELEVATOR SYSTEMS	7.04	22
H371 PERFORM FIRE SENSING AND CIRCUITRY CHECKOUT PROCEDURES	7.03	12
H300 ADJUST SILO OR ACCESS PORTAL ELEVATOR SYSTEM COMPONENTS	6.97	17
F160 ADJUST PNEUMATIC ELECTRIC REFRIGERATION CONTROLS	6.95	15
H343 ISOLATE MALFUNCTIONS ON FILTER BOX COMPONENTS	6.94	4
H329 ISOLATE MALFUNCTIONS ON COMPLEX POWER TRANSFER FROM THE FACILITY POWER CONTROL BOARDS (FPCB)	6.87	10
H349 ISOLATE MALFUNCTIONS ON LAUNCH SILO BLAST VALVE SYSTEM ELECTRICAL COMPONENTS	6.85	7
F161 CALIBRATE PNEUMATIC ELECTRIC REFRIGERATION CONTROLS	6.85	14
H372 PERFORM FIRE SENSING SYSTEM ELECTRICAL COMPONENT OPERATIONAL CHECKS	6.81	13
B50 WRITE CORRESPONDENCE	6.80	31
H328 ISOLATE MALFUNCTIONS ON COMPLEX POWER TRANSFER FROM THE 480 VOLT SWITCH GEARS	6.78	13
F178 ISOLATE MALFUNCTIONS ON DEHUMIDIFIER ELECTRICAL COMPONENTS	6.72	18
H311 INSPECT ACCESS PORTAL ELEVATOR SYSTEMS	6.71	20
G280 REMOVE OR REPLACE PLUG VALVES	6.67	23
H323 ISOLATE MALFUNCTIONS ON ACCESS PORTAL ELEVATOR SYSTEM COMPONENTS	6.67	18

TABLE 16 (CONTINUED)

TASKS HIGH IN TASK DIFFICULTY

TASKS	TASK DIFFICULTY*	PERCENT OF 445XOF PERSONNEL PERFORMING
F184 ISOLATE MALFUNCTIONS ON PROPELLANT CONDITIONING TRAILER REFRIGERATION COMPONENTS	6.67	8
C82 WRITE STAFF STUDIES, SURVEYS, OR SPECIAL REPORTS	6.64	10
D97 DEVELOP RESIDENT COURSE OR CAREER DEVELOPMENT COURSE CURRICULUM MATERIALS	6.55	1
H409 REMOVE OR REPLACE 480 VOLT SWITCHGEAR ELECTRICAL COMPONENTS	6.55	10
H400 REMOVE OR REPLACE FIRE SENSING SYSTEM COMPONENTS	6.54	12
B46 SUPERVISE ELECTRICAL PERSONNEL (AFSC 542XOF)	6.44	6
H405 REMOVE OR REPLACE MOBILE PROPELLANT TRANSFER SYSTEM ELECTRICAL COMPONENTS	6.44	7

*AVG TASK DIFF = 5, SD = 1

TABLE 17

TASKS RATED ABOVE AVERAGE IN TASK DIFFICULTY AND PERFORMED BY AT LEAST 20 PERCENT OF 445XOF PERSONNEL

TASKS	TASK DIFFICULTY*	PERCENT OF 445XOF PERSONNEL PERFORMING
R320 INSPECT SILO ELEVATOR SYSTEMS	7.05	22
R311 INSPECT PORTAL SYSTEMS	6.71	20
G280 REMOVE OR REPLACE PLUG VALVES	6.67	23
G235 ISOLATE MALFUNCTIONS ON FIRE PREVENTION AND PROTECTION SYSTEMS	6.40	23
G233 ISOLATE MALFUNCTIONS ON DOMESTIC WATER SYSTEMS	6.37	21
G259 PERFORM FIRE WATER SYSTEM CHECKOUT PROCEDURES	6.30	23
G294 ISOLATE MALFUNCTIONS ON DOMESTIC WATER SYSTEM COMPONENTS	6.28	22
C51 ANALYZE MAINTENANCE OR INSPECTION REPORTS	6.24	20
G276 REMOVE AND REPLACE FIRE PREVENTION AND PROTECTION SYSTEM COMPONENTS	6.10	22
G213 ADJUST DOMESTIC WATER SYSTEM COMPONENTS	5.99	22
G277 REMOVE OR REPLACE WATER SYSTEM COMPONENTS	5.96	21
G282 REMOVE OR REPLACE WATER PUMPS	5.95	25
G291 ISOLATE MALFUNCTIONS ON COOLING WATER SYSTEMS	5.95	26
G298 ISOLATE MALFUNCTIONS ON HAND WATER STORAGE TANK SUPPLY SYSTEMS	5.92	20
F175 ISOLATE MALFUNCTIONS ON CHILLED WATER SYSTEM COMPONENTS	5.83	20
D87 CONDUCT MAINTENANCE TRAINING	5.81	24
F207 REMOVE OR REPLACE CHILLED WATER SYSTEM COMPONENTS	5.75	21
R274 REMOVE OR REPLACE DOMESTIC WATER SYSTEM COMPONENTS	5.74	21
G236 ISOLATE MALFUNCTIONS ON FIRE WATER SYSTEMS	5.72	22
G272 REMOVE OR REPLACE CONTAMINATED WASTE WATER SYSTEM COMPONENTS	5.65	21
G267 PERFORM PURSING SHUTOFF	5.64	21
G232 ISOLATE MALFUNCTIONS ON COOLING WATER SYSTEM COMPONENTS	5.64	28
R134 MAKE ENTRIES ON NON-REM REQUISITION (MANUAL) FORMS (DD FORM 1348-6)	5.63	22
G281 REMOVE OR REPLACE SANITARY WASTE SYSTEM COMPONENTS	5.63	20
G241 ISOLATE MALFUNCTIONS ON PLUG VALVE MECHANICAL COMPONENTS	5.57	22

*AVG TASK DIFF = 5, SD = 1

TABLE 18

TASKS NOT REFERENCED TO STS 445X0F

TASKS	TRAINING EMPHASIS*	PERCENT		TASK DIFFICULTY**
		FIRST-ENLISTMENT PERSONNEL PERFORMING		
G215 ADJUST FIRE PREVENTION AND PROTECTION SYSTEM COMPONENTS	4.74	30	5.51	
G276 REMOVE OR REPLACE FIRE PREVENTION AND PROTECTION SYSTEM COMPONENTS	4.70	31	6.10	
G277 REMOVE OR REPLACE FIRE WATER SYSTEM COMPONENTS	4.70	28	5.96	
G260 PERFORM FIRE WATER SYSTEM SHUTDOWN PROCEDURES	4.65	26	5.21	
G261 PERFORM FIRE WATER SYSTEM STARTUP PROCEDURES	4.65	26	5.41	
F284 PERFORM REFRIGERATED SYSTEM OPERATIONAL CHECKS	4.56	15	5.45	
G265 PERFORM INDUSTRIAL WATER SYSTEM SHUTDOWN PROCEDURES	4.56	25	5.09	
G213 ADJUST DOMESTIC WATER SYSTEM COMPONENTS	4.52	30	5.99	
G266 PERFORM INDUSTRIAL WATER SYSTEM STARTUP PROCEDURES	4.39	23	6.17	
G269 PERFORM SANITARY WASTE WATER SYSTEM SHUTDOWN PROCEDURES	4.39	23	4.90	
G270 PERFORM SANITARY WASTE WATER SYSTEM STARTUP PROCEDURES	4.39	21	4.81	
G274 REMOVE OR REPLACE DOMESTIC WATER SYSTEM COMPONENTS	4.39	28	5.74	
G281 REMOVE OR REPLACE SANITARY WASTE SYSTEM COMPONENTS	4.39	28	5.63	
F206 REMOVE OR REPLACE AIR CONDITIONING SYSTEM COMPONENTS	4.35	16	5.78	
G217 ADJUST HARD WATER STORAGE TANK SUPPLY SYSTEM COMPONENTS	4.35	26	8.12	
G271 REMOVE OR REPLACE CHILLED WATER SYSTEM COMPONENTS	4.35	30	5.28	
G272 REMOVE OR REPLACE CONTAMINATED WASTE WATER SYSTEM COMPONENTS	4.35	28	5.65	
G273 REMOVE OR REPLACE COOLING WATER SYSTEM COMPONENTS	4.35	31	5.52	
G218 ADJUST SANITARY WASTE SYSTEM COMPONENTS	4.26	25	5.65	
G249 PERFORM CONTAMINATED WASTE WATER SYSTEM CHECKOUT PROCEDURES	4.26	25	4.57	
G262 PERFORM HARD WATER STORAGE TANK SUPPLY SYSTEM CHECKOUT PROCEDURES	4.26	18	5.83	
G263 PERFORM HARD WATER STORAGE TANK SUPPLY SYSTEM OPERATING PROCEDURES	4.26	18	5.45	
G279 REMOVE OR REPLACE INDUSTRIAL WATER SYSTEM COMPONENTS	4.26	25	5.68	
G210 ADJUST CHILLED WATER SYSTEM COMPONENTS	4.22	34	5.36	
G278 REMOVE OR REPLACE HARD WATER STORAGE TANK SUPPLY SYSTEM COMPONENTS	4.22	27	5.74	
E128 MAKE ENTRIES ON ISSUE/TURN IN REQUEST FORMS (AF FORM 2005)	4.13	32	4.13	
G211 ADJUST CONTAMINATED WASTE WATER SYSTEM COMPONENTS	4.13	30	5.14	
G224 INSPECT CHILLED WATER SYSTEMS	4.04	34	4.92	
E136 MAKE ENTRIES ON OPERATOR'S INSPECTION GUIDE AND TROUBLE REPORT (GENERAL PURPOSE VEHICLE FORMS (AFTO FORM 374))	3.87	32	3.06	
I412 ADJUST PRESSURE RELIEF VALVES	3.48	10	4.50	

TABLE 18 (CONTINUED)

TASKS NOT REFERENCED TO STS 445XOF

TASKS	TRAINING EMPHASIS*	PERCENT FIRST-ENLISTMENT PERSONNEL		TASK DIFFICULTY**
		PERFORMING		
H368 PERFORM ELECTRICAL POWER GENERATION SYSTEM CHECKOUT PROCEDURES	3.44	15		4.80
H364 PERFORM DIESEL ENGINE INTAKE AND EXHAUST MANIFOLD OPERATIONAL CHECKS	3.26	13		5.84
J458 PERFORM MISSILE COMPLEX ENTRANCE PROCEDURES	3.26	66		2.90
H410 SERVICE DIESEL LUBRICATING OIL SYSTEMS	3.17	13		4.65

*AVG TMG EMP = 3.02, SD = 2.99

**AVG TASK DIFF = 5, SD = 1

TABLE 19

TASKS NOT REFERENCED TO POI AND RATED ABOVE AVERAGE IN TRAINING EMPHASIS

TASKS	TRAINING EMPHASIS*	PERCENT 1-24 MONTHS		PERCENT 1-48 MONTHS		TASK DIFFICULTY**
		TAPPS	PERSONNEL PERFORMING	TAPPS	PERSONNEL PERFORMING	
F202 PERFORM MISSILE COMPLEX AIR BALANCING	5.13	8	13			7.26
G216 ADJUST FIRE WATER SYSTEM COMPONENTS	4.87	46	30			5.38
G215 ADJUST FIRE PREVENTION AND PROTECTION SYSTEM COMPONENTS	4.74	46	30			5.51
G212 ADJUST COOLING WATER SYSTEM COMPONENTS	4.70	46	34			4.90
G276 REMOVE OR REPLACE FIRE PREVENTION AND PROTECTION SYSTEM COMPONENTS	4.70	31	31			6.10
G277 REMOVE OR REPLACE FIRE WATER SYSTEM COMPONENTS	4.70	31	30			5.96
G260 PERFORM FIRE WATER SYSTEM SHUTDOWN PROCEDURES	4.65	23	26			5.21
G261 PERFORM FIRE WATER SYSTEM STARTUP PROCEDURES	4.65	23	26			5.41
F204 PERFORM REFRIGERATION SYSTEM OPERATIONAL CHECKS	4.56	8	15			5.45
G265 PERFORM INDUSTRIAL WATER SYSTEM SHUTDOWN PROCEDURES	4.56	23	25			5.09
G213 ADJUST DOMESTIC WATER SYSTEM COMPONENTS	4.52	46	80			5.09
G258 PERFORM FIRE PROTECTION AND PREVENTION SYSTEM OPERATIONAL CHECKS	4.48	15	50			5.60
G268 PERFORM SANITARY WASTE WATER SYSTEM CHECKOUT PROCEDURES	4.44	23	24			5.19
G266 PERFORM INDUSTRIAL WATER SYSTEM STARTUP PROCEDURES	4.39	23	23			5.17
G269 PERFORM SANITARY WASTE WATER SYSTEM SHUTDOWN PROCEDURES	4.39	23	23			4.90
G270 PERFORM SANITARY WASTE WATER SYSTEM STARTUP PROCEDURES	4.39	15	21			4.81
G274 REMOVE OR REPLACE DOMESTIC WATER SYSTEM COMPONENTS	4.39	31	28			5.74
G275 REMOVE OR REPLACE EMERGENCY SHOWER OR EYE WASHER COMPONENTS	4.39	31	25			4.92
G281 REMOVE OR REPLACE SANITARY WASTE SYSTEM COMPONENTS	4.39	31	28			5.63
F206 REMOVE OR REPLACE AIR-CONDITIONING SYSTEM COMPONENTS	4.35	8	16			5.78
G217 ADJUST HARD WATER STORAGE TANK SUPPLY SYSTEM COMPONENTS	4.35	39	26			6.12
G271 REMOVE OR REPLACE CHILLED WATER SYSTEM COMPONENTS	4.35	31	30			5.28
G272 REMOVE OR REPLACE CONTAMINATED WASTE WATER SYSTEM COMPONENTS	4.35	31	28			5.65
G273 REMOVE OR REPLACE COOLING WATER SYSTEM COMPONENTS	4.35	39	31			5.52
G256 PERFORM FIRE PROTECTION AND PREVENTION SHUTDOWN PROCEDURES	4.30	15	26			5.22
G257 PERFORM FIRE PROTECTION AND PREVENTION STARTUP PROCEDURES	4.30	15	26			5.33
H300 ADJUST SILO OR ACCESS PORTAL ELEVATOR SYSTEM COMPONENTS	4.30	0	16			6.97
F207 REMOVE OR REPLACE CHILLED WATER SYSTEM COMPONENTS	4.26	31	26			5.75

TABLE 19 (CONTINUED)

TASKS NOT REFERENCED AND RATED ABOVE AVERAGE IN TRAINING EMPHASIS

TASKS	TRAINING EMPHASIS*	PERCENT 1-24 MONTHS TAFTS		PERCENT 1-48 MONTHS TAFTS		TASK DIFFICULTY**
		PERSONNEL PERFORMING	PERSONNEL PERFORMING	PERSONNEL PERFORMING	PERSONNEL PERFORMING	
G218 ADJUST SANITARY WASTE SYSTEM COMPONENTS	4.26	31	25	5.55		
G249 PERFORM CONTAMINATED WASTE WATER SYSTEM CHECKOUT PROCEDURES	4.26	31	25	4.57		
G262 PERFORM HARD WATER STORAGE TANK SUPPLY SYSTEM CHECKOUT PROCEDURES	4.26	15	18	5.83		
G263 PERFORM HARD WATER STORAGE TANK SUPPLY SYSTEM OPERATING PROCEDURES	4.26	8	18	5.45		
G279 REMOVE OR REPLACE INDUSTRIAL WATER SYSTEM COMPONENTS	4.26	23	25	5.60		
G210 ADJUST CHILLED WATER SYSTEM COMPONENTS	4.22	39	34	5.36		
G278 REMOVE OR REPLACE HARD WATER STORAGE TANK SUPPLY SYSTEM COMPONENTS	4.22	23	26	5.74		
E128 MAKE ENTRIES ON ISSUE/TURN IN REQUEST FORMS (AF FORM 2005)	4.13	31	33	4.13		
G211 ADJUST CONTAMINATED WASTE WATER SYSTEM COMPONENTS	4.13	39	30	5.14		
F184 ISOLATE MALFUNCTIONS ON PROPELLANT CONDITIONING TRAILER REFRIGERATION COMPONENTS	4.04	8	8	6.67		
G224 INSPECT CHILLED WATER SYSTEMS	4.04	31	34	4.92		
G253 PERFORM DOMESTIC WATER SYSTEM CHECKOUT PROCEDURES	4.00	23	25	5.47		
G251 PERFORM COOLING WATER SYSTEM SHUTDOWN PROCEDURES	3.96	23	26	4.75		
G252 PERFORM COOLING WATER SYSTEM STARTUP PROCEDURES	3.96	23	26	5.07		
G254 PERFORM DOMESTIC WATER SYSTEM SHUTDOWN PROCEDURES	3.96	23	25	5.01		
G255 PERFORM DOMESTIC WATER SYSTEM STARTUP PROCEDURES	3.96	23	25	5.19		
E136 MAKE ENTRIES ON OPERATOR'S INSPECTION GUIDE AND TROUBLE REPORT (GENERAL PURPOSE VEHICLES) FORMS (AFTO FORM 374)	3.87	39	33	3.06		
E291 ADJUST DIESEL ENGINE GOVERNORS	3.83	0	13	4.68		

*AVG TNG EMP = 3.02, SD = 1.70

**AVG TASK DIFF = 5, SD = 1

OTHER ANALYSES

In addition to information related to tasks and duties, each survey respondent was requested to fill out a general background information section. This section provides biographical and specialty-related data which may be used to address specific issues raised by career ladder personnel. A brief summary of this information is presented below.

Level of Organization Assigned

A majority of the respondents of the LGM-25 Missile Facility career ladder is assigned at one of four levels of organization (wing, squadron, branch, or section). No major differences in tasks performed were identified as a result of differences in levels of assignment. Table 20 presents percentages of 445X0 personnel assigned at various levels.

Time Spent in Government Vehicle Traveling to and from Missile Sites

A substantial amount of the 445X0F respondents' job time was spent traveling to and from missile sites. As presented in Table 21, approximately 68 percent of these respondents traveled to and from missile sites, which consumed varying amounts of time.

Equipment Handling at Operational Bases and Missile Sites

Equipment handling is a fairly common function performed by 445X0F personnel at both operational bases and missile sites. Sixty-three percent of the incumbents perform this function at operational bases, while 59 percent perform the function at missile sites. Table 22 and 23 present the number of hours spent handling equipment.

Training Other Than Branch Training

Training, other than branch training, was participated in by some members of the 445X0F career field. The percentages of members involved and the approximate number of hours spent in other training is presented in Table 24.

TABLE 20
LEVEL OF ORGANIZATION ASSIGNED

	<u>PERCENT OF 445XOF PERSONNEL ASSIGNED</u>
HQ US AIR FORCE	2
MAJOR COMMAND	3
NUMBERED AIR FORCE	1
WING	24
GROUP	4
SQUADRON	20
BRANCH	27
SECTION	18
OTHER	<u>1</u>
	100

TABLE 21
**HOURS PER WEEK SPENT TRAVELING BY GOVERNMENT VEHICLE
TO AND FROM MISSILE SITES
(PERCENT MEMBERS PERFORMING)**

<u>TRAVELING HOURS PER WEEK</u>	<u>445XO PERSONNEL PERCENT MEMBERS PERFORMING</u>
0	32
1-10 HOURS	30
11-20 HOURS	34
21-30 HOURS	3
31-40 HOURS	0
40+ HOURS	<u>1</u>
	100

TABLE 22
HOURS PER DAY SPENT HANDLING EQUIPMENT
AT OPERATIONAL BASES

<u>HOURS PER DAY</u>	<u>445XOF PERSONNEL PERCENT MEMBERS PERFORMING</u>
NONE	37
LESS THAN 1 HOUR	21
1-2 HOURS	29
2-3 HOURS	9
3+ HOURS	<u>4</u>
	100

TABLE 23
HOURS PER DAY SPENT HANDLING EQUIPMENT
AT MISSILE SITES

<u>HOURS PER DAY</u>	<u>445XOF PERSONNEL PERCENT MEMBERS PERFORMING</u>
0	41
LESS THAN 1 HOUR	29
1-2 HOURS	21
2-3 HOURS	5
3+ HOURS	<u>4</u>
	100

TABLE 24

HOURS PER MONTH SPENT IN TRAINING
OTHER THAN BRANCH TRAINING

<u>NUMBER OF HOURS SPENT PER MONTH</u>	<u>445XOF PERSONNEL PERCENT MEMBERS PERFORMING</u>
0-4 HOURS	33
5-8 HOURS	25
9-12 HOURS	17
13-16 HOURS	8
17-20 HOURS	0
20+ HOURS	<u>17</u>
	100

IMPLICATIONS

The 445X0F specialty is a fairly small career ladder in which the facility maintenance functions may be subject to some changes due to recent plans to discontinue the Titan II Missile. Much of this change is to be accomplished during the last quarter of FY 1982. As a result of proposed changes, the future use of 445X0F personnel is uncertain.

A review of the Specialty Training Standard revealed a number of tasks were being performed which were not included in the STS; such tasks involved fire protection systems, domestic water systems, chilled water systems, and waste water systems. These areas should be considered for inclusion when the STS is next reviewed.

The Plan of Instruction for the basic course was also reviewed in light of first-enlistment incumbents' tasks. A substantial number of tasks (237) were not referenced to the POI and 79 of these tasks were rated high in Training Emphasis by senior technicians. Some of these tasks are probably trained in the SAC follow-on courses, but documents for such local training courses were not available for review. Discussion with SAC technicians indicated that local programs provide very specialized training in several major areas (such as: facility electronics, environmental services, refrigeration, and power production). Such specialized local SAC courses complement the general basic course.

If AFS 445X0F training is to remain active, it should be reviewed in a Utilization and Training Workshop to refine the STS and POI. Such a review should include an in-depth analysis of the SAC courses.

APPENDIX A
JOB DESCRIPTIONS FOR SPECIALTY JOB GROUPS

TABLE A1
MAINTENANCE CONTROLLERS
(GRP041)

TASKS	PERCENT MEMBERS PERFORMING (N=11)
B31 DISPATCH MAINTENANCE TEAMS	100
B27 DIRECT COMPLIANCE WITH MAINTENANCE POLICIES OR PROCEDURES	91
B41 MAINTAIN STATUS BOARDS, GRAPHS, OR CHARTS OTHER THAN FOR TRAINING	82
A4 DETERMINE WORK PRIORITIES	82
B29 DIRECT MAINTENANCE OR UTILIZATION OF EQUIPMENT, SUPPLIES, OR WORKSPACE	82
A17 PROVIDE TECHNICAL ADVICE TO MISSILE CREWS	82
E118 INITIATE WORK ORDERS	73
B28 DIRECT DEVELOPMENT OR MAINTENANCE OF STATUS BOARDS, GRAPHS, OR CHARTS	64
C69 EVALUATE WORK SCHEDULES	55
C77 PREPARE APRs	55
D93 DEMONSTRATE HOW TO LOCATE TECHNICAL INFORMATION	55
B26 COUNSEL PERSONNEL ON PERSONAL OR MILITARY-RELATED PROBLEMS	55
B38 INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	45
D89 CONDUCT OJT	36
A15 PLAN WORK ASSIGNMENTS	36
E135 MAKE ENTRIES ON ON-THE-JOB TRAINING RECORD FORMS (AF FORM 623/623A)	36
B49 SUPERVISE MISSILE MAINTENANCE PERSONNEL (AFSC 443X0E)	27
B47 SUPERVISE MISSILE FACILITIES SPECIALISTS (AFSC 4450F)	27
B48 SUPERVISE MISSILE FACILITIES TECHNICIANS (AFSC 44570F)	27
A18 REVIEW PERSONNEL REQUIREMENTS	27
E132 MAKE ENTRIES ON MAINTENANCE DATA COLLECTION RECORD FORMS (AFTO FORM 349)	27
A3 DETERMINE REQUIREMENTS FOR SPACE, PERSONNEL, EQUIPMENT, OR SUPPLIES	27
B24 COMPILE INFORMATION FOR REPORTS OR STAFF STUDIES	27
E119 MAINTAIN DOCUMENTATION FILES OTHER THAN TECHNICAL ORDER FILES	27
A19 SCHEDULE LEAVES OR PASSES	27

TABLE A2
JOB CONTROLLERS
(GRP050)

TASKS	PERCENT MEMBERS PERFORMING (N=5)
B31 DISPATCH MAINTENANCE TEAMS	100
B27 DIRECT COMPLIANCE WITH MAINTENANCE POLICIES OR PROCEDURES	100
B41 MAINTAIN STATUS BOARDS, GRAPHS, OR CHARTS OTHER THAN FOR TRAINING	80
A4 DETERMINE WORK PRIORITIES	80
B28 DIRECT DEVELOPMENT OR MAINTENANCE OF STATUS BOARDS, GRAPHS, OR CHARTS	80
C69 EVALUATE WORK SCHEDULES	80
B29 DIRECT MAINTENANCE OR UTILIZATION OF EQUIPMENT, SUPPLIES, OR WORKSPACE	60
A17 PROVIDE TECHNICAL ADVICE TO MISSILE CREW COMMANDERS, STAFF AGENCIES, OR MISSILE CREWS	60
B126 MAKE ENTRIES ON EQUIPMENT UTILIZATION AND MAINTENANCE SCHEDULE FORMS (AF FORM 2401)	40
D89 CONDUCT OJT	40
E118 INITIATE WORK ORDERS	40
C77 PREPARE APRs	40
B38 INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	20
B46 SUPERVISE ELECTRICAL PERSONNEL (AFSC 542XOF)	20
B47 SUPERVISE MISSILE FACILITIES SPECIALISTS (AFSC 4455OF)	20
B49 SUPERVISE MISSILE MAINTENANCE PERSONNEL (AFSC 443XOE)	20
E131 MAKE ENTRIES ON MAINTENANCE DATA COLLECTION RECORD (AUTOMATED) (VFIC) FORMS (AFTO FORM 349-3)	20
A15 PLAN WORK ASSIGNMENTS	20
B26 COUNSEL PERSONNEL ON PERSONAL OR MILITARY-RELATED PROBLEMS	20
B40 MAINTAIN CONTINGENCY PLANS	20
D93 MAKE ENTRIES ON TITAN II DIESEL GENERATOR OPERATING LOG FORMS (SAC FORM 155)	20
C52 ANALYZE WORKLOAD REQUIREMENTS	20
E120 MAINTAIN EQUIPMENT SUPPLY ACCOUNTS	20
E121 MAINTAIN TECHNICAL ORDER (TO) FILES	20
B24 COMPILE INFORMATION FOR REPORTS OR STAFF STUDIES	20
E128 MAKE ENTRIES ON ISSUE/TURN-IN REQUEST FORMS (AF FORM 2005)	20

TABLE A3
SENIOR JOB CONTROLLERS
(GRP048)

TASKS	PERCENT MEMBERS PERFORMING (N=6)
B31 DISPATCH MAINTENANCE TEAMS	100
E118 INITIATE WORK ORDERS	100
B29 DIRECT MAINTENANCE OR UTILIZATION OF EQUIPMENT, SUPPLIES, OR WORKSPACE	100
A17 PROVIDE TECHNICAL ADVICE TO MISSILE CREW COMMANDERS, STAFF AGENCIES, OR MISSILE CREWS	100
B41 MAINTAIN STATUS BOARDS, GRAPHS, OR CHARTS OTHER THAN FOR TRAINING	83
A4 DETERMINE WORK PRIORITIES	83
B27 DIRECT COMPLIANCE WITH MAINTENANCE POLICIES OR PROCEDURES	83
D93 DEMONSTRATE HOW TO LOCATE TECHNICAL INFORMATION	83
B26 COUNSEL PERSONNEL ON PERSONAL OR MILITARY RELATED PROBLEMS	83
B38 INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	67
C77 PREPARE APRs	67
E135 MAKE ENTRIES ON ON-THE-JOB TRAINING RECORD FORMS (AF FORM 623/623A)	67
B48 SUPERVISE MISSILE FACILITIES TECHNICIANS (AFSC 44570F)	50
A18 REVIEW PERSONNEL REQUIREMENTS	50
E132 MAKE ENTRIES ON MAINTENANCE DATA COLLECTION RECORD FORMS (AFTO FORM 349)	50
A15 PLAN WORK ASSIGNMENTS	50
B28 DIRECT DEVELOPMENT OR MAINTENANCE OF STATUS BOARDS, GRAPHS, OR CHARTS	50
A3 DETERMINE REQUIREMENTS FOR SPACE, PERSONNEL, EQUIPMENT, OR SUPPLIES	50
E119 MAINTAIN DOCUMENTATION FILES OTHER THAN TECHNICAL ORDER FILES	50
D89 CONDUCT OJT	33
B49 SUPERVISE MISSILE MAINTENANCE PERSONNEL (AFSC 443X0E)	33
E153 REVIEW MAINTENANCE DATA COLLECTION RECORD FORMS (AFTO FORM 349)	33
B24 COMPILE INFORMATION FOR REPORTS OR STAFF STUDIES	33
B47 SUPERVISE MISSILE FACILITIES SPECIALISTS (AFSC 4450F)	33
C69 EVALUATE WORK SCHEDULES	33
J451 CLEAN SHOP FACILITIES	33
D94 DETERMINE OJT TRAINING REQUIREMENTS	33
B34 IMPLEMENT SAFETY PROGRAMS	33
D92 COUNSEL TRAINEES ON TRAINING PROGRESS	33
A11 PLAN BRIEFINGS	33

TABLE A4
SUPERVISORY PERSONNEL
(GRPO44)

TASKS	PERCENT MEMBERS PERFORMING (N=14)
A15 PLAN WORK ASSIGNMENTS	100
B50 WRITE CORRESPONDENCE	100
C77 PREPARE APRs	100
B26 COUNSEL PERSONNEL ON PERSONAL OR MILITARY-RELATED PROBLEMS	100
A4 DETERMINE WORK PRIORITIES	93
B27 DIRECT COMPLIANCE WITH MAINTENANCE POLICIES OR PROCEDURES	93
B38 INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	93
A9 ESTABLISH PERFORMANCE STANDARDS FOR SUBORDINATES	93
A19 SCHEDULE LEAVES OR PASSES	93
B47 SUPERVISE MISSILE FACILITIES SPECIALISTS (AFSC 44550F)	79
A17 PROVIDE TECHNICAL ADVICE TO MISSILE CREW COMMANDERS, STAFF AGENCIES, OR MISSILE CREWS	79
D89 CONDUCT OJT	79
D93 DEMONSTRATE HOW TO LOCATE TECHNICAL INFORMATION	79
A1 ASSIGN PERSONNEL TO DUTY POSITIONS	79
A21 SCHEDULE PERSONNEL FOR SCHOOLS, TEMPORARY DUTY (TDY) ASSIGNMENTS, OR NONTECHNICAL TRAINING	79
E129 MAKE ENTRIES ON JOB PROFICIENCY GUIDE CONTINUATION SHEET FORMS (AF FORM 797)	79
C80 SELECT INDIVIDUALS FOR SPECIALIZED TRAINING	79
A3 DETERMINE REQUIREMENTS FOR SPACE, PERSONNEL, EQUIPMENT, OR SUPPLIES	79
C54 EVALUATE COMPLIANCE WITH MAINTENANCE POLICIES OR PROCEDURES	71
B24 COMPILE INFORMATION FOR REPORTS OR STAFF STUDIES	71
C70 INDORSE AIRMEN PERFORMANCE REPORTS (APR)	71
C51 ANALYZE MAINTENANCE OR INSPECTION REPORTS	71
C55 EVALUATE COMPLIANCE WITH PERFORMANCE STANDARDS	71
E135 MAKE ENTRIES ON ON-THE-JOB TRAINING RECORD FORMS (AF FORM 623/623A)	71
D85 ASSIGN ON-THE-JOB TRAINING (OJT) TRAINERS	71
B39 INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	71
D92 COUNSEL TRAINEES ON TRAINING PROGRESS	71
A6 DEVELOP WORK METHODS OR PROCEDURES	64
C57 EVALUATE INSPECTION REPORTS OR PROCEDURES	64
C56 EVALUATE INDIVIDUALS FOR PROMOTION, DEMOTION, OR RECLASSIFICATION	64

TABLE A5
SUPERVISORY AND QUALITY CONTROL PERSONNEL
(GRP054)

TASKS	PERCENT MEMBERS PERFORMING (N=7)
B50 WRITE CORRESPONDENCE	100
B27 DIRECT COMPLIANCE WITH MAINTENANCE POLICIES OR PROCEDURES	100
C77 PREPARE APRs	100
A15 PLAN WORK ASSIGNMENTS	100
A6 DEVELOP WORK METHODS OR PROCEDURES	100
A4 DETERMINE WORK PRIORITIES	100
B26 COUNSEL PERSONNEL ON PERSONAL OR MILITARY-RELATED PROBLEMS	100
A19 SCHEDULE LEAVES OR PASSES	100
A1 ASSIGN PERSONNEL TO DUTY POSITIONS	100
B49 SUPERVISE MISSILE MAINTENANCE PERSONNEL (AFSC 443X0E)	86
B38 INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	86
A9 ESTABLISH PERFORMANCE STANDARDS FOR SUBORDINATES	86
A17 PROVIDE TECHNICAL ADVICE TO MISSILE CREW COMMANDERS, STAFF AGENCIES, OR MISSILE CREWS	86
B24 COMPILE INFORMATION FOR REPORTS OR STAFF STUDIES	71
C70 INDORSE AIRMEN PERFORMANCE REPORTS (APR)	71
C54 EVALUATE COMPLIANCE WITH MAINTENANCE POLICIES OR PROCEDURES	71
C51 ANALYZE MAINTENANCE OR INSPECTION REPORTS	71
D93 DEMONSTRATE HOW TO LOCATE TECHNICAL INFORMATION	71
A3 DETERMINE REQUIREMENTS FOR SPACE, PERSONNEL, EQUIPMENT, OR SUPPLIES	71
A21 SCHEDULE PERSONNEL FOR SCHOOLS, TEMPORARY DUTY (TDY) ASSIGNMENTS, OR NONTECHNICAL TRAINING	71
C80 SELECT INDIVIDUALS FOR SPECIALIZED TRAINING	71
C56 EVALUATE INDIVIDUALS FOR PROMOTION, DEMOTION, OR RECLASSIFICATION	57
B47 SUPERVISE MISSILE FACILITIES SPECIALISTS (AFSC 4450F)	57
C57 EVALUATE INSPECTION REPORTS OR PROCEDURES	57
D89 CONDUCT OJT	57
C55 EVALUATE COMPLIANCE WITH PERFORMANCE STANDARDS	57
B41 MAINTAIN STATUS BOARDS, GRAPHS, OR CHARTS OTHER THAN FOR TRAINING	57
C69 EVALUATE WORK SCHEDULES	57
A8 ESTABLISH ORGANIZATIONAL POLICIES, OFFICE INSTRUCTIONS (OI), OR STANDARD OPERATING PROCEDURES (SOP)	57
D85 ASSIGN ON-THE-JOB TRAINING (OJT) TRAINERS	57

TABLE A6
SUPERVISORY AND TRAINING PERSONNEL
(GRP058)

TASKS	PERCENT MEMBERS PERFORMING (N=7)
B47 SUPERVISE MISSILE FACILITIES SPECIALISTS (AFSC 44550F)	100
A15 PLAN WORK ASSIGNMENTS	100
C77 PREPARE APRs	100
E153 REVIEW MAINTENANCE DATA COLLECTION RECORD FORMS (AFTO FORM 349)	100
D107 MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	100
B50 WRITE CORRESPONDENCE	100
B26 COUNSEL PERSONNEL ON PERSONAL OR MILITARY-RELATED PROBLEMS	100
B38 INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	100
B31 DISPATCH MAINTENANCE TEAMS	100
E128 MAKE ENTRIES ON ISSUE/TURN IN REQUEST FORMS (AF FORM 2005)	100
D94 DETERMINE OJT TRAINING REQUIREMENTS	100
E140 MAKE ENTRIES ON REPARABLE ITEM PROCESSING TAG FORMS (AFTO FORM 350)	100
E129 MAKE ENTRIES ON JOB PROFICIENCY GUIDE CONTINUATION SHEET FORMS (AF FORM 797)	100
D109 PREPARE TRAINING SCHEDULES	100
D92 COUNSEL TRAINEES ON TRAINING PROGRESS	100
D89 CONDUCT OJT	100
E134 MAKE ENTRIES ON NON-NSN REQUISITION (MANUAL) FORMS (DD FORM 1348-6)	100
A9 ESTABLISH PERFORMANCE STANDARDS FOR SUBORDINATES	100
B39 INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	100
E143 MAKE ENTRIES ON SERVICEABLE TAG-MATERIAL FORMS (DD FORM 1574)	100
B45 SUPERVISE APPRENTICE MISSILE FACILITIES SPECIALISTS (AFSC 44530F)	86
A4 DETERMINE WORK PRIORITIES	86
B27 DIRECT COMPLIANCE WITH MAINTENANCE POLICIES OR PROCEDURES	86
E137 MAKE ENTRIES ON PREDISPATCH NOTIFICATION FORMS (SAC FORM 172)	86
E135 MAKE ENTRIES ON ON-THE-JOB TRAINING RECORD FORMS (AF FORM 623/623A)	86
E132 MAKE ENTRIES ON MAINTENANCE DATA COLLECTION RECORD FORMS (AFTO FORM 349)	86
A19 SCHEDULE LEAVES OR PASSES	86
C55 EVALUATE COMPLIANCE WITH PERFORMANCE STANDARDS	86
D85 ASSIGN ON-THE-JOB TRAINING (OJT) TRAINERS	86
A21 SCHEDULE PERSONNEL FOR SCHOOLS, TEMPORARY DUTY (TDY) ASSIGNMENTS, OR NONTECHNICAL TRAINING	86
D93 DEMONSTRATE HOW TO LOCATE TECHNICAL INFORMATION	86
C80 SELECT INDIVIDUALS FOR SPECIALIZED TRAINING	86
D102 EVALUATE OJT TRAINEES	86

TABLE A7
TRAINING MANAGEMENT PERSONNEL
(GRP017)

TASKS	PERCENT MEMBERS PERFORMING (N=11)
D107 MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	82
D109 PREPARE TRAINING SCHEDULES	73
D84 ADVISE STAFF OR UNIT PERSONNEL ON TRAINING MATTERS	73
D99 DIRECT OR IMPLEMENT TRAINING PROGRAMS OTHER THAN OJT	73
D110 PROCURE TRAINING AIDS, SPACE, OR EQUIPMENT	64
D83 ADMINISTER TESTS	64
D93 DEMONSTRATE HOW TO LOCATE TECHNICAL INFORMATION	55
D111 SCORE TESTS	55
B50 WRITE CORRESPONDENCE	55
B24 COMPILE INFORMATION FOR REPORTS OR STAFF STUDIES	55
D96 DEVELOP LESSON PLANS	55
D104 EVALUATE TRAINING METHODS, TECHNIQUES, OR PROGRAMS	45
D87 CONDUCT MAINTENANCE TRAINING	45
E121 MAINTAIN TECHNICAL ORDER (TO) FILES	45
A3 DETERMINE REQUIREMENTS FOR SPACE, PERSONNEL, EQUIPMENT, OR SUPPLIES	45
E119 MAINTAIN DOCUMENTATION FILES OTHER THAN TECHNICAL ORDER FILES	36
D116 WRITE TEST QUESTIONS	36
E147 MAKE ENTRIES ON TEMPORARY ISSUE RECEIPT FORMS (AF FORM 1297)	36
A6 DEVELOP WORK METHODS OR PROCEDURES	36
D106 MAINTAIN TRAINING EQUIPMENT	36
A18 REVIEW PERSONNEL REQUIREMENTS	27
C69 EVALUATE WORK SCHEDULES	27
D91 CONDUCT TRAINING CONFERENCES OR BRIEFINGS	27
D90 CONDUCT RESIDENT COURSE CLASSROOM TRAINING	27
D112 SELECT INDIVIDUALS FOR SPECIALIZED TRAINING COURSES	27
E123 MAKE ENTRIES ON CHARGE OUT RECORD FORMS (AF FORM 614)	27
E154 REVIEW PUBLICATION REQUIREMENTS INDEXES (PRI) OR NUMERICAL INDEX REQUIREMENTS TABLES (NIRT)	27
E131 MAKE ENTRIES ON MAINTENANCE DATA COLLECTION RECORD (AUTOMATED) (VFIC) FORMS (AFTO FORM 349-3)	27
E136 MAKE ENTRIES ON OPERATORS INSPECTION GUIDE AND TROUBLE REPORT (GENERAL PURPOSE VEHICLES) FORMS (AFTO FORM 374)	27
D95 DETERMINE RESIDENT COURSE TRAINING REQUIREMENTS	27
D92 COUNSEL TRAINEES ON TRAINING PROGRESS	27
B26 COUNSEL PERSONNEL ON PERSONAL OR MILITARY-RELATED PROBLEMS	27
B25 CONDUCT STAFF MEETINGS	27
B39 INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	27
E128 MAKE ENTRIES ON ISSUE/TURN IN REQUEST FORMS (AF FORM 2005)	27

TABLE A8
LOGISTICS PERSONNEL
(GRP049)

TASKS	PERCENT MEMBERS PERFORMING (N=5)
E147 MAKE ENTRIES ON TEMPORARY ISSUE RECEIPT FORMS (AF FORM 1297)	100
E128 MAKE ENTRIES ON ISSUE/TURN IN REQUEST FORMS (AF FORM 2005)	100
B39 INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	100
E134 MAKE ENTRIES ON NON-NSN REQUISITION (MANUAL) FORMS (DD FORM 1348-6)	100
E120 MAINTAIN EQUIPMENT SUPPLY ACCOUNTS	80
E140 MAKE ENTRIES ON REPARABLE ITEM PROCESSING TAG FORMS (AFTO FORM 350)	80
E143 MAKE ENTRIES ON SERVICEABLE TAG-MATERIAL FORMS (DD FORM 1574)	80
E151 MAKE ENTRIES ON UNSERVICEABLE (CONDEMNED) TAG MATERIEL FORMS (DD FORM 1577)	80
A3 DETERMINE REQUIREMENTS FOR SPACE, PERSONNEL, EQUIPMENT, OR SUPPLIES	80
B42 PREPARE CHANGES TO EQUIPMENT AUTHORIZATION LISTS	60
J456 MAINTAIN TOOL KITS	40
B50 WRITE CORRESPONDENCE	40
J460 PERFORM OPERATOR MAINTENANCE ON SHOP EQUIPMENT	40
C82 WRITE STAFF STUDIES, SURVEYS, OR SPECIAL REPORTS	40
B41 MAINTAIN STATUS BOARDS, GRAPHS, OR CHARTS OTHER THAN FOR TRAINING	40
C72 INSPECT PROTECTIVE EQUIPMENT	40
E156 REVIEW SUPPLY LEVELS	40
A7 DRAFT BUDGET OR FINANCIAL REQUIREMENTS	40
A29 DIRECT MAINTENANCE OR UTILIZATION OF EQUIPMENT, SUPPLIES OR WORKSPACE	40
E136 MAKE ENTRIES ON OPERATORS INSPECTION GUIDE AND TROUBLE REPORT (GENERAL PURPOSE VEHICLES) FORMS (AFTO FORM 374)	40
E119 MAINTAIN DOCUMENTATION FILES OTHER THAN TECHNICAL ORDER FILES	40
C77 PREPARE APRs	40

TABLE A9
ENVIRONMENTAL DEFENSE PERSONNEL
(GRP047)

TASKS	PERCENT MEMBERS PERFORMING (N=5)
J451 CLEAN SHOP FACILITIES	100
I448 SERVICE HYDRAULIC UNITS	100
I449 SERVICE PNEUMATIC UNITS	100
I442 REBUILD HYDRAULIC VALVES	100
I443 REBUILD PNEUMATIC ACTUATORS	100
I444 REBUILD PNEUMATIC CYLINDERS	100
I445 REBUILD PNEUMATIC VALVES	100
J456 MAINTAIN TOOL KITS	100
B39 INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	100
I440 REBUILD HYDRAULIC ACTUATORS	100
I441 REBUILD HYDRAULIC CYLINDERS	80
I438 REBUILD BLAST VALVES	80
A6 DEVELOP WORK METHODS OR PROCEDURES	80
E118 INITIATE WORK ORDERS	80
E152 PREPARE DANGER TAGS (AF FORM 1492)	80
E143 MAKE ENTRIES ON SERVICEABLE TAG-MATERIAL FORMS (DD FORM 1574)	80
J461 PERFORM ROUTINE OR DAILY INSPECTIONS OF WORK AREAS	60
I425 ISOLATE MALFUNCTIONS ON PNEUMATIC CONTROL ELECTRICAL COMPONENTS	60
I413 CHARGE NITROGEN BOTTLES	60
C72 INSPECT PROTECTIVE EQUIPMENT	60
I422 ISOLATE MALFUNCTIONS ON COMPRESSED AIR SYSTEMS	60
I423 ISOLATE MALFUNCTIONS ON COMPRESSED AIR SYSTEM COMPONENTS	60
E147 MAKE ENTRIES ON TEMPORARY ISSUE RECEIPT FORMS (AF FORM 1297)	60
E151 MAKE ENTRIES ON UNSERVICEABLE (CONDEMNED) TAG MATERIEL FORMS (DD FORM 1577)	60
I427 PERFORM AIR COMPRESSOR OPERATIONAL CHECKS	60
I447 REMOVE OR REPLACE COMPRESSED AIR SYSTEM COMPONENTS	60
E134 MAKE ENTRIES ON NON-NSN REQUISITION (MANUAL) FORMS (DD FORM 1348-6)	60
E129 MAKE ENTRIES ON JOB PROFICIENCY GUIDE CONTINUATION SHEET FORMS (AF FORM 797)	60
E135 MAKE ENTRIES ON ON-THE-JOB TRAINING RECORD FORMS (AF FORM 623/623A)	60

TABLE A10
FACILITY ELECTRICIANS
(GRP032)

TASKS	PERCENT MEMBERS PERFORMING (N=12)
H397 REMOVE OR REPLACE EMERGENCY FACILITY LIGHTING SYSTEM COMPONENTS	100
H369 PERFORM EMERGENCY LIGHTING SYSTEM OPERATIONAL CHECKS	92
H371 PERFORM FIRE SENSING AND CIRCUITRY CHECKOUT PROCEDURES	92
E152 PREPARE DANGER TAGS (AF FORM 1492)	92
H355 ISOLATE MALFUNCTIONS ON SILO ELEVATOR SYSTEM COMPONENTS	92
H338 ISOLATE MALFUNCTIONS ON EMERGENCY FACILITY LIGHTING SYSTEM COMPONENTS	92
H372 PERFORM FIRE SENSING SYSTEM ELECTRICAL COMPONENT OPERATIONAL CHECKS	92
H323 ISOLATE MALFUNCTIONS ON ACCESS PORTAL ELEVATOR SYSTEM COMPONENTS	92
H356 ISOLATE MALFUNCTIONS ON SURFACE GATE ELECTRICAL COMPONENTS	92
J462 TRAVEL TO OR FROM OPERATIONAL BASE TO MISSILE SITES	83
H406 REMOVE OR REPLACE NORMAL FACILITY LIGHTING SYSTEM COMPONENTS	83
H358 PERFORM ACCESS PORTAL ELEVATOR SYSTEM OPERATIONAL CHECKS	83
H400 REMOVE OR REPLACE FIRE SENSING SYSTEM COMPONENTS	83
H320 INSPECT SILO ELEVATOR SYSTEMS	83
H344 ISOLATE MALFUNCTIONS ON FIRE SENSING SYSTEM ELECTRICAL COMPONENTS	83
H353 ISOLATE MALFUNCTIONS ON NORMAL FACILITY LIGHTING SYSTEM COMPONENTS	83
J454 LOAD OR UNLOAD EQUIPMENT TO OR FROM TRUCKS AT MISSILE SITES	75
H316 INSPECT EMERGENCY LIGHTING SYSTEMS	75
J454 LOAD OR UNLOAD EQUIPMENT TO OR FROM TRUCKS AT OPERATIONAL BASE	75
J458 PERFORM MISSILE COMPLEX ENTRANCE PROCEDURES	75
H318 INSPECT FIRE SENSING SYSTEM ELECTRICAL COMPONENTS	75
H376 PERFORM SILO ELEVATOR SYSTEM OPERATIONAL CHECKS	75
H311 INSPECT ACCESS PORTAL ELEVATOR SYSTEMS	75
H383 REMOVE OR REPLACE BLAST LOCK DOOR ELECTRICAL COMPONENTS	75
H132 MAKE ENTRIES ON MAINTENANCE DATA COLLECTION RECORD FORMS (AFTO FORM 349)	67
H324 ISOLATE MALFUNCTIONS ON ACCESS PORTAL ENTRANCE DOORS	67
H349 ISOLATE MALFUNCTIONS ON LAUNCH SILO BLAST VALVE SYSTEM ELECTRICAL COMPONENTS	67
H384 REMOVE OR REPLACE BLAST VALVE ELECTRICAL COMPONENTS	67
H319 INSPECT POWER DISTRIBUTION SYSTEM ELECTRICAL COMPONENTS	58
H408 REMOVE OR REPLACE SURFACE WARNING SYSTEM ELECTRICAL COMPONENTS	58
H354 ISOLATE MALFUNCTIONS ON RETRACTABLE PLATFORM ELECTRICAL COMPONENTS	58

TABLE A11

ENVIRONMENTAL SERVICES AND WATER SYSTEMS PERSONNEL
(GRP046)

TASKS	PERCENT MEMBERS PERFORMING (N=29)
G222 CLEAN AND INSPECT WATER STRAINERS	100
G283 REMOVE OR REPLACE WATER STRAINERS	100
G282 REMOVE OR REPLACE WATER PUMPS	100
G234 ISOLATE MALFUNCTIONS ON DOMESTIC WATER SYSTEM COMPONENTS	100
G232 ISOLATE MALFUNCTIONS ON COOLING WATER SYSTEM COMPONENTS	100
G236 ISOLATE MALFUNCTIONS ON FIRE WATER SYSTEMS	100
G240 ISOLATE MALFUNCTIONS ON INDUSTRIAL WATER SYSTEM COMPONENTS	100
G235 ISOLATE MALFUNCTIONS ON FIRE PREVENTION AND PROTECTION SYSTEMS	100
G245 PERFORM CHILLED WATER SYSTEM CHECKOUT PROCEDURES	100
G273 REMOVE OR REPLACE COOLING WATER SYSTEM COMPONENTS	97
G241 ISOLATE MALFUNCTIONS ON PLUG VALVE MECHANICAL COMPONENTS	97
G271 REMOVE OR REPLACE CHILLED WATER SYSTEM COMPONENTS	97
G233 ISOLATE MALFUNCTIONS ON DOMESTIC WATER SYSTEMS	97
G228 ISOLATE MALFUNCTIONS ON CHILLED WATER SYSTEMS	97
G274 REMOVE OR REPLACE DOMESTIC WATER SYSTEM COMPONENTS	97
G239 ISOLATE MALFUNCTIONS ON INDUSTRIAL WATER SYSTEMS	97
G229 ISOLATE MALFUNCTIONS ON CONTAMINATED WASTE WATER SYSTEM COMPONENTS	97
G250 PERFORM COOLING WATER SYSTEM CHECKOUT PROCEDURES	97
G243 ISOLATE MALFUNCTIONS ON SANITARY WATER SYSTEM COMPONENTS	97
G267 PERFORM PLUMBING SHUTOFF	93
G214 ADJUST EMERGENCY SHOWERS AND EYE WASHERS	93
G224 INSPECT CHILLED WATER SYSTEMS	93
G225 INSPECT FIRE PROTECTION AND PREVENTION SYSTEMS	93
G216 ADJUST FIRE WATER SYSTEM COMPONENTS	93
G260 PERFORM FIRE WATER SYSTEM SHUT DOWN PROCEDURES	93
G261 PERFORM FIRE WATER SYSTEM STARTUP PROCEDURES	93
G259 PERFORM FIRE WATER SYSTEM CHECKOUT PROCEDURES	93
G210 ADJUST CHILLED WATER SYSTEM COMPONENTS	93
G213 ADJUST DOMESTIC WATER SYSTEM COMPONENTS	93
G215 ADJUST FIRE PREVENTION AND PROTECTION SYSTEM COMPONENTS	93
G212 ADJUST COOLING WATER SYSTEM COMPONENTS	93
G211 ADJUST CONTAMINATED WASTE WATER SYSTEM COMPONENTS	93
G231 ISOLATE MALFUNCTIONS ON COOLING WATER SYSTEMS	93
G253 PERFORM DOMESTIC WATER SYSTEM CHECKOUT PROCEDURES	93
G276 REMOVE OR REPLACE FIRE PREVENTION AND PROTECTION SYSTEM COMPONENTS	93
G242 ISOLATE MALFUNCTIONS ON SANITARY WASTE SYSTEMS	93

TABLE A12
QUALITY CONTROL AND EVALUATION PERSONNEL
(GRP051)

TASKS	PERCENT MEMBERS PERFORMING (N=6)	
C75	PERFORM COMPLETED MAINTENANCE INSPECTIONS	100
C79	PREPARE MISSILE PERSONNEL EVALUATIONS	100
C63	EVALUATE QUALITY CONTROL PROCEDURES	100
C55	EVALUATE COMPLIANCE WITH PERFORMANCE STANDARDS	100
C54	EVALUATE COMPLIANCE WITH MAINTENANCE POLICIES OR PROCEDURES	100
C60	EVALUATE MISSILE PERSONNEL EVALUATION PROGRAMS	100
C57	EVALUATE INSPECTION REPORTS OR PROCEDURES	100
B24	COMPILE INFORMATION FOR REPORTS OR STAFF STUDIES	100
C72	INSPECT PROTECTIVE EQUIPMENT	100
C51	ANALYZE MAINTENANCE OR INSPECTION REPORTS	100
C66	EVALUATE SUGGESTIONS	100
H320	INSPECT SILO ELEVATOR SYSTEMS	100
G224	INSPECT CHILLED WATER SYSTEMS	100
H311	INSPECT ACCESS PORTAL ELEVATOR SYSTEMS	100
J458	PERFORM MISSILE COMPLEX ENTRANCE PROCEDURES	100
H323	ISOLATE MALFUNCTIONS ON ACCESS PORTAL ELEVATOR SYSTEM COMPONENTS	100
C59	EVALUATE MAINTENANCE OR USE OF WORKSPACE, EQUIPMENT, OR SUPPLIES	83
E139	MAKE ENTRIES ON QUALITY CONTROL INSPECTION SUMMARY FORMS (SAC FORM 1503)	83
D104	EVALUATE TRAINING METHODS, TECHNIQUES, OR PROGRAMS	83
C62	EVALUATE PROCEDURES FOR STORAGE, INVENTORY, OR INSPECTION OF PROPERTY ITEMS	83
C76	PERFORM IN-PROGRESS OR END-ITEM INSPECTIONS	83
E142	MAKE ENTRIES ON SAC CEM ICBM RPIE IMPROVEMENT REPORT FORMS (SAC FORM 86)	83
B50	WRITE CORRESPONDENCE	83
C82	WRITE STAFF STUDIES, SURVEYS, OR SPECIAL REPORTS	83
B27	DIRECT COMPLIANCE WITH MAINTENANCE POLICIES OR PROCEDURES	83
J459	PERFORM OPERATOR MAINTENANCE ON MOTOR VEHICLES	83
C68	EVALUATE UTILIZATION OF PROTECTIVE EQUIPMENT	83
D84	ADVISE STAFF OR UNIT PERSONNEL ON TRAINING MATTERS	83
G225	INSPECT FIRE PROTECTION AND PREVENTION SYSTEMS	83
F168	INSPECT PNEUMATIC ELECTRIC REFRIGERATION CONTROLS	83
A17	PROVIDE TECHNICAL ADVICE TO MISSILE CREW COMMANDERS, STAFF AGENCIES, OR MISSILE CREWS	83
J462	TRAVEL TO OR FROM OPERATIONAL BASE TO MISSILE SITES	83

TABLE A13

**REAL PROPERTY INSTALLED EQUIPMENT (RPIE) PERSONNEL
(GRP090)**

TASKS	PERCENT MEMBERS PERFORMING (N=16)
F205 PERFORM WATER CHILLER OPERATIONAL CHECKS	100
F170 INSPECT WATER CHILLERS	100
F169 INSPECT REFRIGERATION SYSTEMS	100
F182 ISOLATE MALFUNCTIONS ON LAUNCH DUCT AIR CONDITIONING SYSTEMS	100
F166 INSPECT DEHUMIDIFIER COMPONENTS	100
F206 REMOVE OR REPLACE AIR-CONDITIONING SYSTEM COMPONENTS	100
F178 ISOLATE MALFUNCTIONS ON DEHUMIDIFIER ELECTRICAL COMPONENTS	100
F167 INSPECT FAN UNITS	100
F183 ISOLATE MALFUNCTIONS ON LAUNCH DUCT AIR CONDITIONING SYSTEMS COMPONENTS	100
F168 INSPECT PNEUMATIC ELECTRIC REFRIGERATION CONTROLS	100
F195 PERFORM FAN UNIT OPERATIONAL CHECKS	100
F163 INSPECT AIR HANDLERS	100
F159 ADJUST FAN UNITS	100
F207 REMOVE OR REPLACE CHILLED WATER SYSTEM COMPONENTS	100
F175 ISOLATE MALFUNCTIONS ON CHILLED WATER SYSTEM COMPONENTS	100
F208 REMOVE OR REPLACE FAN UNIT COMPONENTS	100
F160 ADJUST PNEUMATIC ELECTRIC REFRIGERATION CONTROLS	100
F177 ISOLATE MALFUNCTIONS ON CONTROL CENTER AIR CONDITIONING SYSTEM COMPONENTS	100
F179 ISOLATE MALFUNCTIONS ON DEHUMIDIFIER MECHANICAL COMPONENTS	100
F180 ISOLATE MALFUNCTIONS ON FAN UNIT ELECTRICAL COMPONENTS	100
F161 CALIBRATE PNEUMATIC ELECTRIC REFRIGERATION CONTROLS	100
F181 ISOLATE MALFUNCTIONS ON FAN UNIT MECHANICAL COMPONENTS	100
F176 ISOLATE MALFUNCTIONS ON CONTROL CENTER AIR CONDITIONING SYSTEMS	100
F186 ISOLATE MALFUNCTIONS TO PNEUMATIC ELECTRIC REFRIGERATION CONTROLS	100
F172 ISOLATE MALFUNCTIONS ON AIR HANDLER ELECTRICAL COMPONENTS	100
F204 PERFORM REFRIGERATION SYSTEM OPERATIONAL CHECKS	94
F194 PERFORM DEHUMIDIFIER OPERATIONAL CHECKS	94
F203 PERFORM PNEUMATIC ELECTRIC REFRIGERATION CONTROL OPERATIONAL CHECKS	94
F158 ADJUST AIR CONDITIONING SYSTEM ELECTRICAL COMPONENTS	94
F165 INSPECT DAMPERS	94
F191 PERFORM CONTROL CENTER AIR CONDITIONING, HEATING, AND VENTILATING CHECKOUT PROCEDURES	94

TABLE A14

FACILITY ELECTRICAL POWER PRODUCTION PERSONNEL
(GRP079)

TASKS	PERCENT MEMBERS PERFORMING (N=15)
H367 PERFORM DIESEL ENGINE SHUTDOWN PROCEDURES	100
H366 PERFORM DIESEL ENGINE MANUAL STARTUP PROCEDURES	100
H377 PERFORM TRANSFER FROM NORMAL TO STANDBY POWER CHECKLIST PROCEDURES	100
H378 PERFORM TRANSFER FROM STANDBY TO NORMAL POWER CHECKLIST PROCEDURES	100
H313 INSPECT DIESEL ENGINE COMPONENTS	100
H373 PERFORM MANUAL TRANSFER TO STANDBY POWER CHECKLIST PROCEDURES	100
H361 PERFORM DIESEL ENGINE COMPONENT OPERATIONAL CHECKS	100
H410 SERVICE DIESEL LUBRICATING OIL SYSTEMS	100
H362 PERFORM DIESEL ENGINE EXHAUST COOLING SYSTEM CHECKOUT PROCEDURES	100
H365 PERFORM DIESEL ENGINE MANUAL ROTATION PROCEDURES	100
H360 PERFORM DIESEL ENGINE AUTOMATIC ALARM AND SHUTDOWN CHECKOUT PROCEDURES	100
H330 ISOLATE MALFUNCTIONS ON DIESEL ENGINE COOLING SYSTEM COMPONENTS	100
H340 ISOLATE MALFUNCTIONS ON EXHAUST COOLING SYSTEMS	100
H394 REMOVE OR REPLACE DIESEL ENGINE TEMPERATURE REGULATING VALVES	100
H336 ISOLATE MALFUNCTIONS ON DIESEL ENGINE TEMPERATURE REGULATING VALVES	100
H293 ADJUST DIESEL TEMPERATURE REGULATING VALVES	100
H364 PERFORM DIESEL ENGINE INTAKE AND EXHAUST MANIFOLD OPERATIONAL CHECKS	100
H346 ISOLATE MALFUNCTIONS ON FUEL STORAGE OR TRANSFER SYSTEM COMPONENTS	100
H306 CLEAN AND INSPECT FUEL STRAINERS	100
H404 REMOVE OR REPLACE FUEL STRAINERS	100
H386 REMOVE OR REPLACE DIESEL ENGINE COOLING SYSTEM COMPONENTS	100
H310 DRAIN OR REFILL DIESEL ENGINE LUBRICATING OIL CRANKCASES	100
H299 ADJUST INTAKE OR EXHAUST VALVES	100
H292 ADJUST DIESEL ENGINE SAFETY OR ALARM SYSTEM COMPONENTS	100
H341 ISOLATE MALFUNCTIONS ON EXHAUST MANIFOLDS OR DUCTS	100
H290 ADJUST DIESEL ENGINE COOLING COMPONENTS	100
H296 ADJUST FUEL STORAGE OR TRANSFER SYSTEM COMPONENTS	100
H402 REMOVE OR REPLACE FUEL INJECTORS	100

TABLE A15
WATER TREATMENT PERSONNEL
(GRP052)

TASKS	PERCENT MEMBERS PERFORMING (N=9)
G285 TEST FOR CHLORINE RESIDUAL	100
G286 TEST FOR PH	100
G287 TEST FOR WATER HARDNESS	100
G219 CALCULATE CHLORIDE RATIOS	100
G288 TREAT FOR CHLORIDE RATIOS	100
E132 MAKE ENTRIES ON MAINTENANCE DATA COLLECTION RECORD FORMS (AFTO FORM 349)	89
G220 CHEMICALLY TREAT CHILLED WATER SYSTEMS	89
H209 ADJUST CHEMICAL INJECTION PUMPS	89
J451 CLEAN SHOP FACILITIES	89
E130 MAKE ENTRIES ON LOCALLY PRODUCED INDUSTRIAL WATER TREATMENT LOG FORMS	78
G221 CHEMICALLY TREAT COOLING WATER SYSTEMS	78
J462 TRAVEL TO OR FROM OPERATIONAL BASE TO MISSILE SITES	78
J456 MAINTAIN TOOL KITS	78
G223 INSPECT CHEMICAL INJECTION PUMPS	67
J458 PERFORM MISSILE COMPLEX ENTRANCE PROCEDURES	67
J461 PERFORM ROUTINE OR DAILY INSPECTIONS OF WORK AREAS	67
J453 LOAD OR UNLOAD EQUIPMENT TO OR FROM TRUCKS AT OPERATIONAL BASE	67
E152 PREPARE DANGER TAGS (AF FORM 1492)	67
G226 ISOLATE MALFUNCTIONS ON CHEMICAL FEEDERS	56
J459 PERFORM OPERATOR MAINTENANCE ON MOTOR VEHICLES	56
J454 LOAD OR UNLOAD EQUIPMENT TO OR FROM TRUCKS AT MISSILE SITES	56
G244 PERFORM CHEMICAL INJECTION PUMP OPERATIONAL CHECKS	44
E136 MAKE ENTRIES ON OPERATORS INSPECTION GUIDE AND TROUBLE REPORT (GENERAL PURPOSE VEHICLES) FORMS (AFTO FORM 374)	44
G227 ISOLATE MALFUNCTIONS ON CHEMICAL INJECTION SYSTEMS	44
J452 COORDINATE MAINTENANCE WITH JOB CONTROL	44
J457 PARTICIPATE IN PREDISPATCH BRIEFINGS	44
J460 PERFORM OPERATOR MAINTENANCE ON SHOP EQUIPMENT	44
F162 CHEMICALLY DESCALE CHILLED OR COOLING WATER SYSTEMS	33
G224 INSPECT CHILLED WATER SYSTEMS	33
E153 REVIEW MAINTENANCE DATA COLLECTION RECORD FORMS (AFTO FORM 349)	33
J455 MAINTAIN BUILDING AREA GROUNDS AND SILO SITES	33
E143 MAKE ENTRIES ON SERVICABLE TAG-MATERIAL FORMS (DD FORM 1574)	33

